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ABSTRACT

Problems of access to health care facing Appalachia mountain communities are confounded by unemployment, poverty, low education, and local religious beliefs that barrier people from receiving medical care. This proceedings addresses the issues related to health access and health needs. It contains 20 papers and 12 synopses of presentation. The proceedings includes four sections: (1) overviews of health problems in Appalachian region, with discussions on political economic context, health behavioral patterns, anthropological view of mental health, new ways of rural medical practice, financial issues of health care system, and social analysis of illness in the region; (2) empirical research reports on health needs and attitudes, encompassing community survey of health experiences, case study of the homeless people's health needs and rural health care payment system, and field work on health behavior of women, adolescents, and other groups; (3) description and evaluation of demonstrative projects, ranging from rural hospital alliance, services for rural elderly and children, to community involvement of health care system; and (4) summaries of papers on more specific research topics that may be of interest to narrower audiences. This document contains numerous tables, charts, graphics, and references. (DHP/GGH)

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HEALTH IN APPALACHIA

Proceedings from the 1988 Conference on Appalachia

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THE APPALACHIAN CENTER

HEALTH

IN APPALACHIA

Proceedings from the 1988
Conference on Appalachia

November 3-5, 1988

University of Kentucky

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Ronald D Eller, Director

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TABLE OF CONTENTS

Introduction by Jane W. Bagby 1

OVERVIEWS

The Political Economy of Appalachian Health
by Richard A. Couto 5

Health Behavior: Prevention, Promotion, and Maintenance
by Robert L. Johnson 17

Mental Health in Appalachia: An Anthropologist's Perspective
by Susan Emley Keefe 23

The New Country Doctor: A Panel Discussion
by Joe Florence, Greta Combs, Artie Ann Bates, and Tom Benzoni 33

Equitable Financing For a Practical, Competitive Health Care System
by Arch G. Mainous, Jr. 46

Respiratory Disease in Southern Appalachia:
A Social Development Analysis
by John G. McNutt and Marcia F. Barron 49

RESEARCH AND ANALYSIS

Health Experiences and Behaviors Among Appalachian and Non-Appalachian Kentuckians: Results from the Kentucky Health Survey
by Timothy P. Johnson, Arthur L. Frank, James G. Hougland, Robert W. Moore, and Thomas R. Ford 63

Toward an Understanding of the Health Care Needs of the Rural Homeless in Appalachia: A Case Study of the Sheltered Homeless in East Tennessee
by Gregory A. Hoover, Michael V. Carter, Mark A. Heinrich, Lenahan O'Connell, Dorothy R. Scott, Marietta Daulton, and Joel E. Tilson 76

Assessing Medicare's Prospective Payment System in the Context of Rural Healthcare Delivery: An Appalachian Case Study
by Lizbeth A. Pyle, Linda S. Culp, James M. Shumway and Robert M. D'Alessandri 87

The Stigma of Mental Illness: The Labeling of Low-Status Appalachian Women
by Judith Ivy Fiene 93

Symptoms of Anxiety and Depression among Eastern Kentucky Adolescents: Insights from Comparative Fieldwork
by Susan Abbott 102

Urban Appalachian Health Concerns
by Phillip J. Obermiller and Robert W. Oldendick 116

Stress and Health Behaviors in a Rural Adult Educational Cooperative
by Guy L. Osborne, Tara L. Fregin, Cindy Greene, and Lois Hicks 127

DEMONSTRATION PROJECTS

The Potential for Hospital Alliances in Appalachia: A Case Study of the Western North Carolina Rural Hospital Alliance
by Barry W. Elledge and Richard G. Sparks 139

Networking for the Vulnerable in Appalachia: Health Services for the Rural Elderly
by Frederick F. MacDonald and Judith Halseth 147

Oral Health Care Strategies for Family Caregivers of Dependent Elderly in Appalachia
by Stanley R. Saxe, Robert G. Henry, and Merle Wekstein 153

The Kentucky Area Health Education Center Program: Universities and Communities Working Together to Meet Kentucky's Health Manpower Needs
by Mae Marie Quan and James Norton 157

Children: The Vulnerable Population of Appalachia
by C. Charlton Mabry 163

Health Professionals' Location and Practice in Rural Underserved Areas: An Assessment of Variables
by Angel Rubio, Gerry Gairola, and Karen O. Skaff 171

An Active Community Health Network
by Barbara Clinton 176

SUMMARIES

The Influence of Culture: A Comparison of the Patterns Depicted on the Genograms of Appalachian and Non-Appalachian Families
by Joyce R. Bassham 183

The Impact of Culturally Bound Behaviors on Health Care Delivery in Appalachia
by Anne B. Blakeney 184

A Community Health Coalition to Meet the Priority Health Needs of a Five-County Kentucky Appalachian Area Development District
by Grace G. Eddison. 185

Report from the Kentucky Chamber of Commerce 1987 Indigent Health Care Committee
by Robert N. Elliston 186

Special Health Problems in Appalachia
by Arthur Frank 187

Maternal Health Risk and Neonatal Outcomes
by Barbara Sachs and Ruth C. Beeman 188

A Community Nursing Practice for Health in Appalachia
by Jessie M. Sams 189

A Retail Theft Education Program: Alternative Approaches for Dealing with Adolescent Offenders
by Marsha C. Smith and Mavis Humes 190

Cancer Mortality in Rural Appalachian Kentucky
by Thomas C. Tucker, Gilbert H. Friedell, Lorann Stallones, Jay Randall Thompson, and Jane W. Bagby 191

The Deaf Adolescent - A Mentally Healthy Environment
by Michael A. Valentine 192

The Family Stabilization Project
by Christine A. Walker 193

The Children's Diagnostic Clinic: A Multi-Disciplinary Assessment of Emotional and Behavioral Problems
by Robert Dane, David Beard, and Vivian Zehr 194

INTRODUCTION

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Within the next decade our society must face and answer the question of whether health care is a right or a privilege. If we decide that health care is a privilege, we must be able to close our eyes to much of the suffering that many in our society will have to face. We will also have to absorb the many hidden costs associated with poor health, such as decreased productivity, poor school performance, and lost wages. If, on the other hand, we decide that health care is a right, we must face other equally difficult questions, such as who will pay for universal health care and how the bureaucracy of such a universal system will be kept in check.

In an area of high unemployment and poverty rates, many Appalachians await this decision with great anticipation (or perhaps trepidation). Even if a way is found to pay for health care for all our citizens, improved health status in mountain communities is not guaranteed. Many problems not associated with health care funding will still need to be addressed. One of the most pressing is how to attract doctors and other health care professionals into rural areas, which they perceive to lack some of the "advantages" of urban areas. Still another is how to provide physical access to people who lack public transportation or vehicles of their own. Poor roads further complicate this last issue.

In addition to the many problems of access to health care facing mountain communities, attitudinal barriers exist as well. These barriers range from religious beliefs that preclude folks from receiving any medical care at all, to belief systems that lead many Appalachians to drive long distances to urban centers so that they can receive the "best" medical care for themselves and their loved ones. Another complicating factor comes from health providers who bring false stereotypes and assumptions to the practice of medicine in mountain communities. Finally, people who have been long accustomed to seeking expensive health care only as a last resort will need to be re-educated to seek the kind of preventive care that helps preserve health rather than restore it.

A 1986 study produced by the Appalachian Center indicated that health status among Appalachian Kentuckians was poorer than that of other Kentuckians. Statistics were especially striking for teenage pregnancy, diabetes, and accidental death. More recently, a 1988 study produced by the University of Kentucky Markey Cancer Center, analyzing cancer deaths in rural Kentucky, indicated higher rates of lung and cervical cancer deaths in rural Appalachian counties than in rural non-Appalachian counties. These and other figures from around the region indicate the continuing need to increase the amount and quality of health care available in mountain communities.

While they await some decision on the funding of a national health system, Appalachians are using their own initiatives to meet health needs in mountain communities. People in communities throughout the region, as well as policy makers and academicians who study the problems facing these communities, are hard at work researching the needs, offering new and innovative solutions, and designing programs to solve new (and not so new) problems. Most of all, people are rolling up their sleeves and providing the energy necessary to keep clinics open, transport people to care, and provide medical services where they might not otherwise be available.

At the University of Kentucky's 1988 Conference on Health Care in Appalachia, from which this volume of proceedings is drawn, some three hundred people gathered to listen and share with others their concerns and strategies for address-

ing health problems in the region. Papers were presented under four main headings: 1) Political, Historical, and Economic Issues of Health in Appalachia; 2) Health Behavior: Prevention, Promotion, and Maintenance; 3) Mental Health, Especially as it Relates to Children and Families; and 4) Health Issues of Special Concern in Appalachia. Within this framework, fifty presentations were given in a broad range of topics, including children, the aged, the survival of rural clinics, the stigma associated with mental health care, and models for alternative health programs.

It is not possible to include all fifty presentations in these Proceedings. The twenty that are included in their entirety were chosen not only for the quality of the material but especially for their possible value to practitioners and policy makers involved in planning for and providing health care throughout the region.

The papers are grouped in four sections. The first group includes articles that are comprehensive and theoretical. They offer background information on the historic, economic, and cultural issues related to health care in the Appalachian region and should provide readers a context in which to view the rest of the articles as well as their own work.

The second section is made up of papers describing recent research and analysis related to health issues in the region. This section provides statistics and other factual information at the same time that it raises questions which require further research.

Section three provides descriptions of projects and programs which have been used to address some of the current health concerns in the region. In this section, readers will find ideas and perhaps inspiration which may lead them to try innovative programs of their own.

Finally, section four gives synopses of selected papers which may interest a somewhat narrower audience than those included in their entirety, but nevertheless contain important information related to health in the region.▪

OVERVIEWS

THE POLITICAL ECONOMY OF APPALACHIAN HEALTH

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Much of the literature on Appalachia reads like a litany of misery; this is unfortunate, for it reflects all too faithfully the human suffering that continues in this region. The statistics on infant mortality, morbidity, and mortality relate in cold, numerical fashion the symptoms of inequality and deprivation that seem anomalous in America. These symptoms continue in a period of economic recovery and at time of national prosperity making them all the more disconcerting and important. There will be a minor litany of misery in this discussion so that we do not overlook the need for continued change and improvement.

However, this paper will deal, for the most part, with what has changed and improved. In particular, the paper examines three community health centers in eastern Kentucky, each of which is nearing 20 years of service and change. I will place these efforts in the national context of a community health center movement and discuss the success and limits of this movement, which are evident in the three centers of our concern. I will use these limits of success in the community health centers to illustrate the political economy of health care and the political economy of health. This in turn will suggest what we have accomplished and what remains for us to do.

The Community Health Center Movement

Over the past two decades, health care in Appalachia has changed. How it has changed is partially reflected in the experiences of primary care centers in the region. These health centers are a direct link to the programs of the War on Poverty and a national resolve to deal with the problems of poverty in America. In fact, as we know all too well, the War on Poverty was called, in part, because of the conditions of poverty in eastern Kentucky. Health conditions in eastern Kentucky were an important front, and community health care centers, an important strategy in the effort to eliminate poverty or at least mitigate its worst consequences in eastern Kentucky, Appalachia, and America. These centers, then, are very significant because they entailed changes in health care and a new understanding of the socio-economic conditions of which health and health care are a part.

Appalachia, in many ways, is a measure of America, not an exception or an anomaly. The health and health care of Appalachian residents are fashioned, in part, by national forces. Consequently, the formation, implementation, and current condition of community health centers in the Appalachian region are one small window offering a view of national trends and events, including health care policies and more as well. As I will attempt to show, examining health care in Appalachia eventually entails examining the political economy of health care and health itself.

There are three community health centers that offer important lessons about health and health care in eastern Kentucky and about the national political economy that is their context. All in coal counties, these centers are the Clover Fork Clinic in Harlan County, the Mud Creek Clinic in Floyd County, and the Eastern Kentucky Health Services in Knott County. They are neither a random sample nor the entire universe of community health centers in eastern Kentucky or central Appalachia.

In fact, their significance sets them apart from other community health efforts in the region, all of which are probably unique. The Clover Fork Clinic began in 1970 with funding from the Appalachian Regional Commission (ARC). It is one of the very first of nineteen such community

health centers which ARC helped to finance, and it became a showcase as a building, as a program, and as an effort to combat poverty. Eastern Kentucky Health Services began in 1972 with funding from several foundations and the leadership of a physician, Grady Stumbo, and an administrator, Benny Bailey. This community health effort served as a national model to the Robert Wood Johnson Foundation, which replicated it in underserved areas elsewhere. The foundation had success in this effort in Cabin Creek, West Virginia. The Mud Creek Clinic, our third health center, began in 1973 in the wake of several years of conflict over an anti-poverty health program which was directed by the local, physician-dominated board of health and eventually defunded.

Behind these different beginnings are three different but related change efforts: the Civil Rights Movement, the student movement, and the War on Poverty. The Mud Creek Clinic is related to the new forms of mass political participation for change best expressed by the Civil Rights Movement. That movement had an important counterpart in union reform efforts of the 1960s and expressed itself in national policy in the "maximum feasible participation" provision of the War on Poverty. The Eastern Kentucky Welfare Rights Organization sprang from the tradition of organizing for change in the mountains, but it was nurtured by the environment of political change created by the Civil Rights Movement and new government programs such as VISTA.

The times of change of the 1960s affected students as well as government programs and civil rights organizations. It was the student participation in social change efforts that infused Eastern Kentucky Health Services with its initial vision. Both Grady Stumbo and Benny Bailey led the public service student project at Alice Lloyd College. In their health center work, they anticipated a new type of health providers, like themselves and their compatriots, to come out of medical school and public health programs and to address health within the context of water systems, roads, schools, and other human services.

Clover Fork reflected public policy change. ARC, by 1970, incorporated the War on Poverty's vision of government response to local needs. It provided capital for facilities and staff to introduce health services where there were none. The hand of Washington stretched out to the needs of Harlan County. This hand was attached to a body accountable to governors and local politicians and went about its work in hopes of stimulating no controversy.

This was a variant of the major effort within the Office of Health Affairs (in the Office of Economic Opportunity) that was laden with controversy. The OHA was in the business of starting community health centers, and by 1970 it had started 79 of them across the country (Marcus, p. 38). The genesis of the community health center concept in OHA was the social change inherent in the Civil Rights Movement. This genesis had two parts which often clashed. The first was improving services to the poor as part of an effort to permit them a better chance to use opportunities available to them; this is the part that ARC emulated. The second was empowering poor people by giving them control over an institution that was an instrument of social change; this is the part that led the Eastern Kentucky Welfare Rights Organization to protest the OHA program in Floyd County and eventually to begin its own program of health services.

Each of the three community health centers wove these three movements -- civil rights, student movement, and public policy change -- into their program in a different pattern. But in the origins of each center one can find similar elements, in varying degrees and expressions:

- the desire to provide new and better health care services for people who had little or no access to health care;
- expectations of new roles for health care providers among themselves, with their patients, and in the community;
- new forms of participation for health

consumers in health care services;

- a new emphasis on community change as an avenue to improved health care.

One could also find in each of these three health centers explicitly shared commitments to improve health care, to extend health care to prevention and education, and to provide health care without regard to the ability of patients to pay.

In a concise statement, H. Jack Geiger, M.D., pioneer in the community health center movement, expressed its spirit and vision in terms we find embodied in the eastern Kentucky centers in varying degree. The movement intended to provide new forms of care and not funds for traditional providers. It intended to create a new kind of institution in the health care delivery system -- the community health center. The centers shifted the locus of care from hospitals to the community and from tertiary care to primary care. The centers also included new kinds of health providers, some of whom would be recruited from the local communities, working in teams with physicians. The health care of these centers included concerns with the physical and political environments and social structures of their patients. The poor, whom the centers served, would have a role in the design and conduct of services to them. But all of these elements were part of a much larger intention of "social and political change to affect those powerful determinants of health status that lie in the economic and social order." The new health care services of these community health centers, in their grandest of ambitions, was a point of entry for broad social, economic, and political change (Geiger 13).

Almost 20 years later, this vision for the community health centers is blurred a bit by age and experience. Upon close examination of the three centers of this study, we find that the explicit and common commitments of each of them are still there, although in changed form. This paper will focus on the transformation of these commitments over time, their present expression, and the lessons acquired along the way about implementing these commitments. I will offer the perceptions of three people on current issues and needs, and then reflect on their views. All three people are key informants, in the jargon of the social sciences, and thoroughly familiar with the operation, goals, and history of one of the three clinics. Eula Hall is the social worker at the Mud Creek Clinic and has worked on health issues since her leadership in the Eastern Kentucky Welfare Rights Organization (EKWRO) in the late 1960s. J.D. Miller, M.D., has been on the medical staff of the Clover Fork Clinic since 1973. Grady Stumbo, M.D., is founder and medical director of the East Kentucky Health Services, which started in 1973. With the aid of their experience, I will set forth some understanding of the political economy of health and health care that we have acquired in the past 20 years.

Constraints and Change

Robert Alford surveyed community health centers shortly after the beginning of the movement to provide equal health care access for all (1972, p. 147-52). He came to pessimistic conclusions about the health centers. His principal finding was that, despite their egalitarian intentions, these alternative facilities in poor areas tend to reproduce the structures they were trying to change, those by which the rest of the health care system operates. This leads to several hypotheses emphasizing the limitations under which community health centers operate.

First, participation of the poor within such services is compromised quickly. Representatives from the community, who work well and without conflict with the center's professionals and funding sources, become decision makers within the centers but express a limited commitment to maximum feasible participation of the poor. Broader forms of representation and extensive participation by community residents and those served in the community health center are discouraged because of conflicts with professionals and the inability or unwillingness of community

residents to deal with the matters related to financing and administration of services. These latter considerations become paramount with time.

Second, the myriad and complex unmet needs of a poor area may lead people there to come to the community health center to have their many needs met. A center attempting to meet those needs and to address health as it relates to many other issues and needs within an individual's life soon finds that its staff is overworked and inadequate. Long waits and reduced quality of care result, unless the staff begins to limit its aspirations to address broad forms of health needs.

Third, community health centers serving the poor begin with several severe financial constraints. They intend to provide care to people without resources to pay for health care. This throws the health centers into dependence on government programs of funding and reimbursement. The variations in these programs produces constant financial instability for the health centers and limits planning to a short-term framework.

Fourth, emphasis on services to the poor suggests to some local residents that the services are second-class, like other public services for people without the ability to pay. Consequently, some residents with the ability to pay will seek their health services at other places and thus chip away at the financial base of the community health center. Other residents will adopt a pattern of getting health services at the community health center in times when they cannot afford to pay and elsewhere in times when they can afford to pay. This simply increases the amount of uncompensated care for the community health center and reinforces its reputation as second-class care.

Fifth, and finally, the instability of the centers, the demands of the practice, and the secondary status ascribed to them all have an impact on the recruitment and retention of providers. In some cases, providers who have difficulty finding a place to practice are welcomed because of the difficulty some centers have in finding physicians. In other cases, idealistic providers come and practice, but the demands on them from their practice, the needs of their families for better schools and recreational or cultural outlets, or the ability to make more money somewhere else often prompt them to leave. Others, such as those in the National Health Service Corps, come for a limited time to satisfy a requirement of service to pay back educational loans. The net result is turnover among the professional staff, which interrupts patient care to a degree, reinforces an image of instability of services, and, worst of all, often contributes to tensions among community residents, board members, and the staff of the center.

Change and Continued Barriers to Care

How do Alford's generalizations apply to the three centers in eastern Kentucky? The answers may be given quickly and concisely:

- First, only in Mud Creek has participation of the poor been a major commitment; acquiring that participation and exercising that participation have continued controversy between the health center and its sponsor, Big Sandy Area Health Care Corporation.

- Second, clinics each have a wide range of health services: x-ray, dental care, pharmacy services, and so on, but they also have a narrower focus on health, i.e., medical care, than when they started.

- Third, the community health centers seem to be well accepted as providers of quality care, but local residents do utilize them for "free care." Without some restrictions on who is eligible for free service, the centers could easily be overcome by deficits resulting from providing discounted services to people from outside their immediate service area.

- Fourth, all of the centers have had remarkable and unusual stability in physician services. This may be related to the fact that, during their training, physicians

in each of these centers participated in movements to establish community health programs.

• Finally, the volume of patients and their myriad needs do not seem to have compromised the quality of care as Alford suggested they might. But this volume does not permit as much health education and individual attention as the providers would prefer.

Other parts of Alford's hypotheses bring us to some of the problems of health care in eastern Kentucky that remain and to new problems that have emerged. In particular, the financial barrier to health care is probably greater than before. There are several reasons for this. First, the cost of health care has gone up in eastern Kentucky, as it has across the country. More importantly, however, as the costs of care have increased, the ability of eastern Kentucky residents to pay for health care has declined, on average. This is due to broader forms of economic change. While some parts of the country enjoy a period of economic prosperity, the severe unemployment and increased poverty that were targets in our national economic recovery still remain in eastern Kentucky. There is less work, there is less high-wage work, and there is less employment with health insurance as a benefit. As a consequence, there are more and more people whose income is too low to pay for health care costs, but too high for Medicaid eligibility.

This suggests a three-tier health care system, with a top tier of the wealthy and the insured enjoying relatively easy access to health care providers, limited -- and increasingly so -- by the provisions of health insurance policies. In the second tier are people who are eligible for public programs: the elderly (eligible for Medicare) and the very poor (eligible for Medicaid). In the third tier are the uninsured, the working poor, and the "better off" among the poor.

In this, as in most other matters, eastern Kentucky highlights national trends. One important revenue source for the community health centers, the health funds of the United Mine Workers, gave way to a less generous, fee-for-service insurance mechanism, as a consequence of 1978 contract negotiations. This change was an early indication of the "give-backs" that union members made to their industries in an effort to keep their jobs. It was particularly significant for the UMWA, because the Health Fund of the coalminers was also the most extensive such benefit that any set of industrial workers had won up till 1946 when it began. Miners did not surrender it easily. The Health Funds played a major role in the wildcat strikes of 1977 and the longest UMWA strike in history, in 1977-78. The change in insurance meant that the health centers were reimbursed for the services of providers on a fee-for-service basis. This ended the retainer system, by which the Fund provided the health centers a monthly payment to cover the estimated costs of providing services to miners and their families. Health center administrators were often able to budget for the costs of special services, including transportation, and even the care given to others at reduced costs because of the regular revenue that the retainer arrangement provided. The change meant far less flexibility for the centers and a reduced commitment to health care in the region from third-party providers.

The change in the UMWA health benefits triggered other changes. UMWA wages and benefits set the benchmark of employment compensation for other coalminers' unions and workers in other industries. As the UMWA's standard declined, so did the standards of other workplaces. As a consequence, health centers found themselves dealing with insurance policies that covered fewer conditions and provided less reimbursement. In one illustrative example, in Harlan County, a man eligible for black lung compensation did not have blood gases high enough to meet the criteria for his insurance policy to reimburse for his care. This decline in standard is likely to get worse as employment in coalmining decreases and the number of UMWA mines in eastern Kentucky decreases as well.

But these changes were not the only

factors that shortened the tether of health center finances. Medicare reimburses rural primary care clinics by a special provision, but it reimburses at a rate below the cost of service. This means that the health centers subsidize the health care of the elderly as well as the working poor.

These economic forces have tested the resolve of health centers to provide care regardless of the ability to pay. All of them have maintained that resolve to some degree and in some fashion. And most important, each center combines its policy to provide care at no or reduced cost with a commitment to the dignity and pride of its patients. Each has a schedule to provide care at discounted prices depending upon income and other factors. At Clover Fork, patients receive a card invoking the provisions of the Hill-Burton funding of medical centers to provide care to the poor, which they are instructed to display at the clinic to attain their discounted services. At Mud Creek, Eula Hall stands vigil by the waiting room as every patient's guarantee that no one will be refused service because of funds. A plaque announces that the health center was founded "for the people," and that spirit serves as the basic entitlement of patients for service.

Medicaid has also changed and provides reimbursement at a cost/plus figure. This change is one bright aspect of the economies of the health centers. Stumbo achieved the changes in Medicaid as secretary of health and human services.

The upshot of these developments is that residents in this area of eastern Kentucky live closer to better health facilities, but the cost of care in those facilities has increased, while the ability of residents to pay for care has generally decreased. Despite geographic proximity to better health services, important financial barriers to care remain. The commitment of the health centers to provide care at discount mitigates the severity of these barriers, but it does not eliminate them.

The centers continue to face the dilemma of meeting the costs of providing services to people who cannot afford to pay for them. Short term solutions to this dilemma include increasing efficiency and reducing the costs of common needs by pooling those needs; diversifying services and including pharmacy and dental services; and finally, trying to earn more money from the smaller number of people capable of paying the full costs of services.

Successful Changes

It is true, as Alford suggested, that the health centers have replicated parts of the medical care system within themselves, but they have also changed portions of that system. The centers are integrated into the health care systems of the area. Salaried physicians, such as those who staff the health centers, now have acceptance from other fee-for-service physicians and the county medical associations. The centers have fashioned an association of their own, indicating their organizational maturity and political sophistication. The Kentucky Primary Care Association represents the interest of these and other health centers in the state legislature and administration. It also provides the centers with an agent to seek alternative funding, such as foundation support, for common needs and new practices. Finally, the clinics have provided new and important opportunities for teaching and learning. Medical students have easier access to better community health training than before because of these and other community health centers.

In all these matters, these community health centers are examples of health care reforms that have succeeded. Victor and Ruth Sidel (1984) surveyed health care reforms of the past 25 years and assessed the community health centers nationally to be reforms that took hold despite efforts to undermine them. Certainly, if we review the original vision of Geiger, it is clear that there are new institutions for providing health care away from hospitals and in communities, utilizing new kinds of health care providers. However limited its success in other aspects of that vision,

we should not overlook that the community health center movement has achieved change in health care. Sidel and Sidel conclude that only two other movements come close to illustrating such successful reform: occupational health and the women's health movement. The secret of success for health care reform seems to be organization. All successful reforms were grounded in organizations before they started, or the reforms developed organizations to protect what they had achieved.

The Limits of Success

The limits of the success of the community health center movement are important and illustrative. Teaching brings us to some of the limits of the community health centers as mechanisms in a movement of community change and improvement. Medical and other health professional students have easier access to better training in primary and community health care, but it is still difficult to recruit them to serve as professionals in the areas which provide them excellent training.

There are indications of the national importance of the work of the health centers in the nature and number of the students they instruct. The physicians' assistants program at Yale, for example, will send 20 of their 24 students to Clover Fork for a period of training. This form of training is a necessary condition to recruiting health professionals to the area, but it is obviously not sufficient.

In fact, some see a change in medical students which does not support movements like the community health centers. Students today seem prepared to practice medicine in a more narrow sense than those who preceded them into community health. That is to say, the new physicians are likely to concentrate more on patient care and less on the socio-economic conditions in which their patients live. Also, some find the medical students concerned about salaries and finances. As one provider lamented, "They think like stockbrokers and expect a six-figure salary the first year out of training." This attitude is not a personal and individual matter but a reflection of the inadequacy of medical school training and finances. Medical schools emphasize acquiring credentials, board certification, and specializing in a narrow field of medicine, leaving medical students with substantial debts to pay off. All of these factors push the social aspects of health care and medicine off of the medical schools' curriculum and the social commitment of medical students off to the edges of their personal agendas.

The modest changes the clinics have achieved symbolize the clinics' functions and limits. The roads in front of the Clover Fork Clinic and to the Mud Creek Clinic probably would not have been paved without the presence of the clinic. These roads are indicative of the efforts of individuals within the health centers to provide new resources to the area or to end unhealthy conditions. There are modest steps, such as the support of public officials who propose improved methods of solid waste management in Knott County. Eula Hall serves as the chairperson of the Mud Creek Water District which brings a higher quality water supply into the area.

There are also efforts to change the allocation and derivation of taxes. For example, the clinic physician at Clover Fork, Dr. J.D. Miller, has been part of efforts to increase tax revenues for the county. His work began with the formation of a local group, the Clover Fork Organization to Protect the Environment (COPE), evolved into a local chapter of the Kentucky Fair Tax Coalition, and now entails a law suit to increase the assessment of unmined minerals.

There are highly personal efforts to provide new resources to the region that go on through the health centers as well. Mud Creek illustrates this well. Eula Hall's office has a glass wall separating it from the waiting area of the community health center. From there, Eula keeps a watchful eye on the people, each of whom she seems to know personally, and anticipates their needs. An hour with Eula

suggests that she is a one-person social welfare system. In the space of that hour, it is likely that there will be several calls about an event that day, such as an accident, and efforts to inquire about the status of the accident victims and their family members. There may be other phone calls about individuals who have not been seen for several days and concerns about their whereabouts and well-being. Other people will call or drop in to ask advice about a need for medicine or records regarding court action on a benefits case or some other matter. Eula is extremely proud of her record -- 90% success in disability cases.

Eula carries on other efforts in addition to these personal interventions. She is a vital member of the Mud Creek Community Health Care Association, which raised the money to construct the building that presently houses the clinic. Doublewide trailers -- which provided temporary shelter when the former building burned to the ground -- now serve as the office of the water district, as a food pantry that assists 120 families a month, and as a used clothing center. Eula is part of another program that adds bathrooms on to the homes of the elderly. They have constructed 25 so far and are planning several more.

Thinking of Health Care as "Social Capital"

These efforts to attract new resources suggest an important role of the community health centers that takes us further into the political economy of health and of health care. This role has become clearer in the years since the centers began, and this clarity is a central lesson we have learned about Appalachian health and health care.

The centers may be considered as forms of social capital, and the people who keep them going are then social capital entrepreneurs. Health and health care are factors in what we might call the production, reproduction, and maintenance of people. Other important factors include housing, environment, recreation, cultural expression, and education. Generally, these factors are shaped to produce, reproduce, and maintain people as workers. The relation of these factors to employment is evident in the "coaltowns" of Appalachia. Health services in the coal counties historically were provided by the coal companies -- a direct investment in social capital by the dominant industry. Or health services were supported by the wages, benefits, or special programs of the dominant industry. Thus the UMWA Health Funds and the Miners Memorial Hospitals were indirect investment in social capital by the coal industry.

Changes in the modes of coal production, beginning in the 1950s, brought on changes in the labor force -- drastically fewer coalminers. The wage economy which sustained the labor force and the factors they used to reproduce and sustain themselves eroded. The greater the decline in the industrial base of a region, the greater the decline in the social capital that maintained and reproduced people from whom the work force for the declined industry came. The decline in eastern Kentucky was so severe that people left the area in large numbers, because there was neither work nor social capital with which people could produce, reproduce and sustain themselves. Many who stayed bore the consequences of a lack of social capital investment in their health, education, housing, environment, recreational opportunity, and the other factors that go to make up the quality of life.

The point is that these factors which produce, reproduce, and maintain people are social capital.

Most often, social capital is spent to produce, reproduce and maintain a workforce. When there is change in the wage economy which sustains that workforce, there is change in social capital as well. The decline in social capital is especially acute in areas where a single industry that has been dominant enters severe decline. This was the case of the coal industry in the two decades which preceded the initiation of these health centers.

The lack of social capital in eastern Kentucky is obvious. It is clear in the environmental degradation in the coalfields. It is symbolized in the large number of mobile homes. In the coal counties of central Appalachia, one finds more mobile homes because there is less social capital in the region. Mobile homes are three times more prevalent in the coal counties of southwestern Virginia than elsewhere in the state (Kraybill, Johnson, and Deaton, p. 39). Mobile homes are social capital liquidity. School children have lower standardized test scores and higher dropout rates (Kraybill, Johnson, Deaton), which also measure the lack of social capital in the region.

Thus, less health care is only one aspect of the lack of social capital which is obvious in eastern Kentucky and central Appalachia. It is this lack of social capital, and not merely the lack of health services, that brings us to the appalling statistics in coal counties: higher teen pregnancy; a lack of prenatal care; higher infant mortality rates; higher rates of developmentally delayed children; higher rates of suicide, homicides, and accidents; and a rate of disability higher, as much as 2.5 times higher, than for non-coal counties of the same state (Bagby et al.; Kraybill, Johnson and Deaton). The figures are not merely a litany of misery. They are a line item account of social capital deficit. They are a list of the subsidies which this region provides to industry, capital, and government programs that disinvest in people.

The health centers we are discussing represent new amounts of social capital in areas where social capital declined. The health centers, although still dependent on the indirect support of the health industry, broadened the financial base of health services by recruiting from new sources, including local fundraising efforts, foundations, Medicaid, Medicare, and state and federal programs.

But the health centers are also new forms of social capital. The centers, especially in their commitment to provide service regardless of the ability of the patient to pay, represent an investment in people not as workers but as people. The services are provided because they are needed by human beings. The inherent dignity of people as human beings plays a much larger role in the social capital investment strategies of these health centers than the role of people as workers.

This is part of the centers' basic financial stress. They attempt to provide care for those who do not work: the elderly, the disabled, the young, and the unemployed -- and for those who work at low wages and in industries which do not require or make extensive social capital investment in the production, reproduction and maintenance of healthy and educated workers. These are low-skilled, low-paying jobs that can be filled adequately from a pool of undifferentiated, unskilled, surplus labor. Consequently, the political economy of social capital is to disinvest in these people. This was especially true during the Reagan administration.

The effort to provide health services from an altered political economy of health care distinguishes the health centers as social capital entrepreneurs. This is most clearly seen in Mud Creek and the archetypical role of Eula Hall as a social capital entrepreneur. Through her organized efforts and those of her associates, she brings new resources for people to feed and cloth themselves and to improve their shelter. These needs are ordinarily taken care of, especially in the mythology of American self-sufficiency, through wages. But where wages are scarce or insufficient, others have to step in to provide alternative sources of these basic needs. Likewise, when people are no longer able to engage in wage labor -- the disabled, for example -- the social capital entrepreneur attempts to locate other forms of funds to provide for the basic needs of people who are no longer workers. Here lies the importance of Eula's record of success in winning disability claims. It also explains her role in coordinating the visit of Senator Edward Kennedy to Mud Creek for a fact-finding tour on hunger at Thanksgiving time in 1984.

The role of the other health centers' professionals as social capital entrepreneurs is equally important, even if less clear. First, fundraising for new services and recruiting new personnel is an act of entrepreneurship, of raising capital and resources to invest in people. The ongoing effort to recruit health care providers to the area is an act of entrepreneurship. It is an effort to bring new resources into a political economy of health care that has not changed. This explains why it is difficult.

The lack of investment in people, of which health care is a part, manifests itself in fewer housing, cultural, and education opportunities, which are not sufficient for most upper-income professionals. In a circular fashion, the political economy of the region that undermines health and impedes the provision of health care, also undermines efforts to recruit health care providers. Poor health care is, fundamentally, a form of disinvestment in people. Poor health is a consequence. Social capital entrepreneurs are people who attempt to bring new investment in people, but their efforts are stymied by systemic factors which make their efforts necessary in the first place.

These systemic factors require broader interventions in health and health care. For that reason, there is frequent mention at these centers of the wisdom of eliminating the broad form deed, the provisions of which destroy the environment, which is a fundamental form of social capital. For that reason also, providers in these health centers worked with others to increase the provision of Medicaid reimbursement and to protest the current provisions of Medicare. These actions regarding Medicaid and Medicare are, at root, an effort to change the political economy of health care. More broadly, the support of the unmined mineral tax, in which Dr. Miller has been a key actor, illustrates another form of social capital entrepreneurship. The consequence of higher assessments of unmined minerals, hopefully, is increased tax revenues. Increased tax revenues mean more resources to spend on human services, or social capital.

The systemic impediments that these social capital entrepreneurs deal with include the short supply of health care providers willing to staff the health centers. There are far fewer "idealistic reformers," and part of the problem is the medical schools. The criteria for medical school admission include high MCAT scores, gender, and perhaps race. Far less important is the desire of an applicant to address the health needs in underserved areas. According to Sidel and Sidel, reforms in medical school admissions and training are among the types of reform that have never taken hold.

The training in medical school is overwhelmingly hospital-based and high-tech; the role models are specialists whose status and prestige are linked to their vast knowledge of limited topics. Unfortunately also, in tertiary care centers, medical students often see cases unmanaged or perhaps mismanaged by primary care physicians in underserved areas. This, coupled with the debt that medical students incur during four years, mutes the idealism of equal-health advocates to work in relative isolation and for low wages and creates new and different aspirations for medical students today. Looked at another way, however, this change in the supply of health personnel for medically underserved areas is a consequence of the medical care system working to reproduce itself by politics, class, and information. Here, of course, is where the political economy of health care corresponds to the political economy of American class structure.

This correspondence is even clearer when we examine another impediment in the recruitment of health personnel -- changes in the policies of the National Health Service Corps (NHSC). First, the number of such scholarships has been reduced from 1,300 to zero (Sidel and Sidel, p. 273). Second, the number of physicians with obligations to serve in underserved areas is in decline. It was capped at 2,000 and will decline as the supply of physicians with NHSC obligations to repay dwindles. Third, the physicians with such obligations have been encour-

aged to begin private practice in underserved areas.

The significance of these changes is three-fold. First, they indicate that across the board there are fewer forms and declining amounts of public dollars in social capital. It is not unusual that Republican administrations cut back on programs started in Democratic administrations. But these are cutbacks by a Republican administration on a program started in a Republican administration -- Nixon's. This suggests the second significance of the NHSC changes: the Reagan era represents a fairly radical shift to a preference that social capital conform to the purposes of private capital and whenever possible come from private sources, including the charitable contributions of industry; the charity of churches; and the work of the voluntary, non-profit sector. Third, where private capital is scarce and where it is tied to a single industry, that industry is reluctant to provide social capital, and other sources of social capital are harder to acquire (Duncan). Simply put, it will be harder and harder to bring physicians, as one form of social capital, to eastern Kentucky, if there is less social capital there and if profit incentives are the determining factor in their choice of place to practice.

Conclusion

The vision of the early community health center program has been blurred temporarily. The community health centers do not aspire to empower poor people for broad socio-economic change as some once did. Even within their goal of providing the poor improved health services, there has been change. The Reagan era is a time of public policy assumptions that there are more opportunities for individuals than we thought previously and that government should do little to help people take advantage of those better opportunities. These assumptions plant seeds of less investment in people which bear bitter fruit, like the continued incidence of unacceptably high rates of mortality, morbidity, and disability, increased numbers of a growing underclass, and the curtailment or end of services in our inner city hospitals.

The root of these assumptions is trust in "the market" to provide for the allocation of goods and services, including human needs and social capital. Such trust transforms human needs such as health care into commodities to be bought and sold. This trust is belied by the experience in eastern Kentucky and elsewhere that demonstrates that there is no market to provide for the basic human needs of people when social capital is in short supply and linked tightly to a group of unemployed or low-wage workers.

Challenged by conditions like those in eastern Kentucky, this trust in the market approach to human needs as commodities is reinforced by two practices. The first is to underestimate the degree of the problem. So our government either does not measure it, changes its measure of a problem, or ignores the troubling measures it has. It is assisted in ignoring them by a second practice; when a problem cannot be denied, reinterpret it. Thus, public problems become the amalgam of the deficiencies of individuals who manifest the problems. We simply have private troubles writ large without a public dimension and deny the need for a public response. We blame the victim.

This form of reinterpretation is precisely the opposite of what C. Wright Mills called the "sociological imagination." That is, the imagination to interpret seemingly private matters as public issues. The process of minimizing our public problems and reinterpreting them suggests that our social imagination and our social conscience may be in critical condition. If this is the case, then the community health centers of this study attend to more than the health of the bodies of the eastern Kentucky residents. They attend to the soul of America. It is in these health centers that we can find a struggle to assert health care as a right based on the inherent dignity of individual human beings; we find here an implicit struggle to prevent the transformation of all human needs into a commodity to be bought and

sold without regard to the human consequences. In the efforts of these health centers we find a protest against subsidizing economic activity at the cost of a degraded environment, a lack of public services, human lives cut short or cut off, and human bodies disabled by a lack of work or by the conditions of the work which is available.

As long as these centers continue their struggle and protest, we will have a boundary on the limits to buy and sell human needs. In their struggles to continue to provide services, the centers continue to spark the sociological imagination. Someday, soon perhaps, these centers will be one of the places from which we reassert our social imagination and our social conscience as well.▪

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HEALTH BEHAVIOR: PREVENTION, PROMOTION, AND MAINTENANCE

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Abstract

This paper emphasizes that basic economic and educational development in the coal-producing areas of Appalachia is essential to lasting health behavior improvements. The importance of incorporating the health care system, rural churches, elementary schools, and modern technology for conveying information in health education efforts is argued, as is reliance on the principles of learning.

In 1976, I had the distinct pleasure of being the founding President of the National Center for Health Education, a voluntary organization which resulted from a report of a presidential commission. Since that time, not because of cause and effect by any means, but due to a host of factors, we have seen a heightened interest in this country in health education, health promotion, disease prevention, and early detection of illness. While there have been for a long time those individuals who have labored quietly and tenaciously in the vineyard of health education and disease prevention, never have we seen as concerted a general public interest in this subject as surrounds us today.

Aerobic exercise classes, walking for exercise in shopping malls, weight control--individually and in groups, cholesterol reduction, low fat/high fiber diets, smoking cessation programs, smoke-free workplaces, airplanes, and restaurant areas, and efforts at moderate alcohol consumption are all illustrations of the increase in awareness of health protection and health improvement.

Advertisers and manufacturers have quickly recognized this increasing and sizeable market. Exercise equipment, high-fiber foods, low-fat cooking oils and meats, non-caloric beverages, and "light" alcoholic beverages are pitched at us on television, on radio, in newspapers, through direct-mail advertising, and in "in-flight" magazines. Even the cigarette manufacturers, when they are not denying the link between smoking and illness, are busy touting "safe" or "safer" products. The advertising barrage is now so steady that I have visions of my diet becoming exclusively oat muffins and skim milk!

Thus, it would appear that Americans have embraced new attitudes toward disease prevention and are more health conscious than ever before. And it is true that more of us are seeking to protect and improve our health status. But some of us are not all of us. It has been observed in a number of quarters that those individuals most interested in the new lifestyles to protect and improve personal health are those who are well-educated and in receipt of good incomes. These factors seem to suggest, much like Mr. Dooley's comment on the Constitution following the flag, that health promotion and changes in lifestyle follow education and discretionary income.

How do these remarks relate to Appalachia? Well, to begin with Appalachia is not Appalachia is not Appalachia. Thus, one has to be careful in making broad generalizations with regard to either incidence of disease, health status, or health behavior. If one uses as the definition of Appalachia the geographic boundaries as generally described by the Appalachian Regional Commission--some 397 counties, one will find considerable variation in communities, economic well-being, levels of education, and health status. If one uses even the more limited 156 counties of the Southern Highlands of Lovingood and Reiman, one finds considerable variation.

Thus, not being a scholar with respect to Appalachia, I have to base my remarks

mostly from the viewpoint of one who has been intimately involved in the delivery of health care and concerned about health problems in a specific, albeit large area of Appalachia for some years. I have had the privilege of being associated with a large health care organization whose entire service area is in the coal counties of West Virginia, Kentucky, and Virginia. Even so, it is with considerable trepidation that I make any generalizations. Clearly my remarks and observations are influenced heavily by my and ARH's specific experience as well as my general understanding and reading from current literature.

Let us look at a few health facts. We are told that diabetes occurs three times more often in Kentucky than in the rest of the nation. Some folks claim that it is five to six times above the national experience in our region. For Appalachian Regional Healthcare (ARH), diabetes is the seventh most common diagnosis for hospital admission and the fifth most common diagnosis for readmission.

According to the Centers for Disease Control, the occurrence of neural-tube birth defects in our region is well above the national experience. Births to teenage mothers in our service area are nearly twice as high as the U.S. percentage. Not enough women in the coal counties receive adequate pre-natal care. Physicians on our medical staffs are concerned about the frequency of obesity, lung cancer, commonplace poor nutrition practices, lack of understanding about chronic lung disease, frequency of depression, and the prevalence of cigarette smoking. Depending on whom one talks with, either Pike County or Perry County, Kentucky leads the nation in per capita consumption of Pepsi-Cola. One could list other health concerns for this region, but I believe the point is made.

Now let us look at some other characteristics of our ARH service region. Much of our area has an unemployment rate at least twice the national average. In 1980, one of four persons in the Kentucky portion of the Southern Highlands lived in poverty. In 1982, the Southern Highlands portion of Kentucky had the lowest per capita income among all states in the Southern Highlands -- and the Highlands area as a whole has a substantially lower per capita income than the national average. And let us take a quick look at education. In Bell County, Kentucky, 61% of the people over 18 do not have a high school education. For Harlan County, the figure is 59%; for Pike and Floyd Counties, the figure is 57%.

I mentioned earlier the relationship between positive health behavior and socio-economic and educational status. While there can be little doubt that we have raised the consciousness of the American people with regard to health behavior over the last ten years, the data continue to suggest that those who pursue the newer knowledge and advice are those who are more affluent and better educated, in short--on a relative scale-- those who need the change in behavior and attitude the least. In the literature now beginning to develop around worksite health promotion activity, once again the data suggests that all too often, once the novelty of the company program has worn off, those who stay with the health promotion programs on a sustained basis, thus suggesting genuine incorporation into day-to-day permanent behavior, are those with the strongest motivation going in, the best health habits, and generally better educated and better paid. And we know from countless studies, as well as everyday observation, that there is a direct relationship between the level of education and the consideration of long-term consequences of personal and collective behavior. Individuals who have prospects for the future tend to think about their present actions.

To the extent that economic wherewithal and education are linked to health behavior and health maintenance, and I believe that to be profoundly so, it may well be that the most important thing any of us can do with respect to pronounced improvement of health in our Appalachian communities is to spend the major amount of our time attempting to improve education and economic opportunity.

One has to consider seriously the entire economic environment and opportunities for self-actualization when one begins to talk about the promotion of desirable health habits and a subsequent increase in longevity in our part of Appalachia. If the quality of life is really not going to be improved, what motivation is there for an individual to take the kind of positive action which in his or her judgment will only influence life at the margin? Indeed, it is plausible that to many people our call for health behavior takes away the few pleasant and satisfying aspects of daily existence. Is it not conceivable that to people who have no income and little education, who are inadequately housed and poorly clothed, and who see no clear way of altering this picture, our exhortations to refrain from excessive smoking and drinking and avoid filling up on high-calorie, empty foods are going to fall on deaf ears? I have held over the years, and continue to hold that, when we talk about improvement of personal health, being unemployed is the greatest health hazard I know.

And when we think about individual behavior, we must remember the importance of the support and reinforcement of collective behavior, if we are to have success. Communities which do not have a tax base sufficient to provide first-class water supplies or adequate and trouble-free sewage disposal systems constitute an environment of minimal support and reinforcement for individual effort. An individual can do only so much--alone!

However, those are longer-range societal concerns, and no matter how important they may be, in the meantime life does go on. In our areas of such high unemployment and low educational attainment, we do have children being born, individuals aging, teenagers becoming pregnant, teenagers becoming parents, and all too often, individuals engaged in day-to-day health behavior and practices which do injury to themselves, their families, and, ultimately, society.

This brings us to the question of what we can do in our region to improve health education, behavior, and maintenance. To begin with we can utilize what we know about learning.

It is a truism in education that imparting information is not the same as educating, and certainly much less than effecting behavior change. Illustrations of this fact abound, and all that we need to remember is that some 50% of nurses smoke and, according to the most recent data I have seen, so do some 40% of the respiratory therapists. Here are two groups of people who have intimate knowledge of exactly what the consequences of smoking are and yet continue to engage in this destructive behavior. Information is not synonymous with education!

Equally, any proficient educator knows full well the importance of the "teachable moment," the need for specificity of materials aimed at the learner's interest and abilities, the relevance of the material to be learned to something important in the learner's set of life objectives. And we know full well about taking culture and sub-culture into consideration when designing either mass promotional efforts or tailored educational activity. But all too often we ignore our own understanding when we go about health education.

Another thing we can do, indeed must do, is to make sure that when Appalachian residents encounter the health care system, they have not only a satisfactory treatment experience, but also a personally satisfying learning experience. It would seem axiomatic that individuals who have come for assistance are, at that moment, frequently in a frame of mind which will allow considerable learning to take place. It is true that, in some of these situations, the emotional trauma may be such that it gets in the way of learning. But generally, I think it fair to say that someone seeking advice or assistance because of a problem is likely to listen to that advice and act upon it, provided a learning situation is created and utilized. This is especially true when the problem has been bothersome enough to require an outlay of money or is perceived to be threatening to health.

In a recent longitudinal clinical study called the Lifecycle Project, supported by the insurance industry, one of the specific items measured was the influence of medical practitioners in changing the health behavior of patients. It was demonstrated clearly that if the physician took the time to counsel the patient in an educationally meaningful way, significant change did take place in the behavior patterns of these individuals, a behavior change which showed strong sustaining power in follow-up after a lapse of reasonable time. This behavior change was much greater for this group of patients than it was for the control groups who received the usual physician's office experience.

This is to suggest that one of the ways we can get at the problem of health education, health maintenance, and health promotion is through the health care system itself. This is an approach that we have not utilized nearly as much as we can. It takes time, it requires commitment. And, for busy practitioners, physicians, nurses, and other health workers, the time that is given to education is frequently not measured or rewarded as productive service. Indeed, all too often the health professional feels penalized, either by workload requirements or by the supervisor's evaluative procedures, if time and attention are given to health education.

But we can do it, and we can utilize what we know about learning. Diabetes, as I mentioned, is a significant diagnosis among readmissions in our system. This is particularly germane to the questions before us, because, generally speaking, these are not insulin-dependent diabetics -- these are more often diabetics dealing with problems of weight and diet. This is truly a matter of education.

In our particular system, we have actually devised patient education materials for diabetics which utilize an audio tape and a teaching manual of illustrations which does not require one to read. This manual is designed to be looked at while the tape is being heard, following either a group or individual educational session. Thus, we have an educational package which does not require a particular reading level on the part of the patient, can be listened to privately in the hospital or at home, and is not costly. It requires only an inexpensive tape player; it can be listened to over and over again for clarification and reinforcement; and it can be used privately or in a family setting, so that everyone understands the problems of this diabetic and why the support of the family is so vital. It would appear that this is exactly the kind of patient education device we need to create and improve in a variety of areas and for a variety of subjects, devices which can be used in the health care setting, which can be loaned to the patient for home care use, or which can be sold for a modest price for permanent retention by the patient.

Even though we have this carefully designed educational package available, I cannot claim that it is widely or intensively used. It is used, and in some of our programs and facilities it is used with enthusiasm and success. But that depends entirely upon the health professional's perspective of how important patient education is in the treatment milieu. This experience, I believe, only serves to underscore the necessity that we not only make provision for the education of patients and families in the health care environment, but that we champion the idea--through in-service education and in the formative education of health professionals--that patient education is as basic in the therapeutic environment as direct treatment.

Unfortunately, even if we had a health care system which did a perfect job, and we are far from that, we would still have an enormous challenge.

One of the very clear problems facing Appalachia is the number of individuals without adequate health insurance or other monetary resources, thus individuals without easy access to the health care system. If large numbers of people are denied the opportunity to avail themselves of the health care system except in moments of extreme crisis, obviously we

are foregoing one of the most available channels, provided these channels are used appropriately and effectively for education and behavior change.

Two other avenues of attack to reach individuals in Appalachia occur to me. One is the school system. Here is a setting, especially in the elementary years, where the development of attitudes and habits can be influenced through sound and effective education. And, over the past 10 to 15 years, there have been developed exciting, effective curricula dealing with health for elementary grades. Appalachian Regional Healthcare, working with the Kentucky Lung Association and the Hazard Public School System, has helped underwrite the introduction of the "Growing Healthy" curriculum into the Hazard classrooms. We could all do more to bring this teaching into our schools.

The other avenue which occurs to me is the church. ARH has not explored this possibility, though we do have two chaplains on our payroll who serve as consultants to and organizers of an extensive and important volunteer chaplaincy program. But we have not tried to use the permeating social, cultural network which churches provide in our rural communities. I am confident that this could be a most effective partner in health promotion, and it is an avenue we are going to investigate. I was pleased to see that the role of the church in working with the elderly will be the subject of a conference presentation (see Dr. MacDonald's paper below).

Finally, let me come back to the role of information in shaping attitudes and behavior. Although I have referred to the limitations of information in the complex equation which comprises learning and behavioral change, in no way do I mean to minimize its importance. Information is fundamental to learning and it should not be ignored or eschewed simply because all of the other elements may not fall into place readily. Over a period of time, information itself does improve readiness, does add to the total environment of normative knowledge, and does improve a climate for acceptability and change. There is every reason to believe that the remarkable decline in deaths from heart disease in this country is related directly to the general increase in knowledge about the relationship of diet to heart disease, its widespread promulgation for a good many years now, its assimilation into more and more of American understanding, and -- as we are now beginning to see -- a genuine modification in behavior patterns with respect to quantities and types of food consumption.

Accordingly, one of the practical suggestions I have to make -- and which I do not think we should dismiss lightly -- for the transmission of information in attractive manner to many individuals, is the use of video tapes.

Video tapes could well portend a revolution in the way a good bit of education, especially adult education, takes place in this country. Obviously, I have no idea what the frequency of VCRs is in Appalachia, but due to the prevalence of television as a major source of entertainment in that region, and due to the relatively inexpensive nature of VCRs, I suspect that the availability of VCRs is high.

Video tape as a raw material is inexpensive; productions do not have to be studio-produced by professional producers and directors utilizing professional actors. These tapes can be produced by amateurs, particularly for short technical subjects, and they can impart a lot of valuable information, particularly to an audience which is used to receiving its information primarily from a television screen. The video tape does not require a reading ability on the part of the viewer, it can be looked at privately or in a group situation, and it can be repeated as many times as necessary.

And again, for those individuals who may not have access to a VCR in their own dwellings, access could be made available through libraries, schools, health care institutions, and other community agencies. In those instances, a leader or teacher could enhance the total learning opportunity. I am suggesting this modal-

ity only for the purpose of imparting information reasonably and effectively. I do not think we comprehend adequately its potential.

Given the health conditions of many residents of Appalachia, positive health behavior and health maintenance is a must for healthier and longer lives. There is much that we could do in health promotion, and I believe that health care professionals and health care organizations have the responsibility to provide leadership. We can do better than we have, we can do better than we are.

But fundamentally, I believe the most important thing we can do to improve and protect personal and community health is to join--with vigor--in the effort to improve the education and economic opportunity of Appalachian citizens.▪

MENTAL HEALTH IN APPALACHIA: AN ANTHROPOLOGIST'S PERSPECTIVE

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You may wonder why an anthropologist has been asked to speak on the subject of mental health. Actually, anthropologists have long had an interest in the relationship between culture and medical systems, having been introduced to the considerable variation which exists cross-culturally in the perception of health and illness and in the organization of the healing process. In fact, the field of medical anthropology has formally developed over the last two decades with its own journals, associations, and training programs. My own research on mental health issues coincides with the emergence of this field, and I identify as a medical anthropologist. My previous research dealt with the utilization of mental health services by Chicanos and Anglos in Southern California. My current research interests involve the relationship between culture, identity, and mental health in Appalachia.

One of the reasons for my editing the book Appalachian Mental Health, just published by the University Press of Kentucky, was the void I found in the literature on the topic. In comparison to the wealth of research and publications I knew to exist on Mexican Americans and mental health, this was indeed a surprise. I suspect the difference has to do with the fact that Mexican Americans are a more urban and clearly ethnic population and thus more visible as a special segment of American society. Appalachians, on the other hand, as a predominantly rural, white, Protestant "Old American" population, are less visible and less perceived as a significant subgroup requiring distinctive treatment.

This is not to say that Appalachians have been better served by mental health services than other minorities. On the contrary, the Appalachian region suffers from significant problems and deficiencies regarding mental health care. Appalachia is underserved by mental health professionals and facilities, as are most rural areas in the United States (Efird 1988), but because Appalachia covers one of the largest and poorest rural populations in the country, its need is intensified. Moreover, those mental health facilities which do serve the region tend to be located in urban centers creating problems in accessibility for rural and low-income residents. Social, economic, and cultural factors, including high rates of poverty and unemployment or underemployment, low levels of education, widespread occupational and environmental hazards, and the lack of complete integration into the national social and cultural fabric, would seem to indicate the potential for higher rates of stress and a greater need for mental health services. Yet, the services which do exist are apparently underutilized.

While, as I have said, Appalachians are generally perceived as less distinctive than other American minority groups set apart from the mainstream by national origin, religion, or language, there is still the perception that Appalachians are somehow different. In the academic world, this has resulted in the rise of the field of Appalachian Studies. The basis for the "differentness" of Appalachians according to scholars is a point of controversy. Some see mountaineers as a separate ethnic group. Others concentrate on the largely rural or lower- and working-class nature of the region's population. Certainly, Appalachians share many traits with the rural poor as well as with ethnic minority groups elsewhere in the nation. Like these groups, the people of Appalachia have experienced historical patterns of control and exploitation (Gaventa 1980; Walls 1978). If nothing else, then, Appalachia as a region is clearly the product of a unique and unequal history and its people have been set apart in both symbolic and

material ways from the rest of America.

The "differentness" of Appalachia has often been conceptualized as cultural, and reputed implications about the significance of cultural difference have been at the heart of the debate concerning the relationship between Appalachia and the rest of America. For this reason, the following essay first addresses the interpretation of cultural difference used by early writers in the field of Appalachian mental health and the current need for critical studies using a more informed concept of culture. Secondly, I will discuss the distinctiveness of the Appalachia experience as it comes to bear on mental health issues. Finally, I will summarize the current issues, as I see them, in the field of Appalachian mental health.

Past Interpretations of the Region's Mental Health

Appalachia has not been dealt with in a tolerant or even-handed way by either the larger society or academic scholars. The past century of exploitation of the region's rich natural resources has been accompanied by a wholesale condemnation of the people and their culture. This has occurred not only in the popular media beginning with the local color writers of the late nineteenth century (Shapiro 1978), but also in the academic literature where Appalachians have been described variously as "barbarians" (Toynbee 1946), "yesterday's people" (Weller 1965), "regressive" (Polansky, Borgman & De Saix 1972), and "nonrational" (Ball 1968). The correlation between political, economic, and cultural domination has been well documented cross-culturally, and work in the last decade, especially by Gaventa (1980) and Whisnant (1983), serves to demonstrate the nature of this relationship between the dominant society and the regional periphery of Appalachia. The emergence of a critical literature concerning Appalachia and the perception of its people is the result, I believe, of real political and economic changes and a growing sense of power in the region. Symbolic, in a way, of these changes has been the emergence of scholars who are natives of the region and who have led in founding the new field of Appalachian Studies. Furthermore, the research of recent years has done much to redress the negative portrayal of Appalachians and the inadequacy of previous analytical models used to interpret the region.

The field of Appalachian mental health, however, has yet to receive significant attention in the way of critical studies. This is surprising since the image of Appalachia presented by mental health studies prior to the mid-1970s is one of the most derogatory on record.

For the purposes of illustration, it is worth reciting some of these pejorative remarks which ultimately characterize the Appalachian people and their culture as deviant. As a consequence, the social, psychological, and economic problems evident in the region are blamed to a greater or lesser degree on this perceived cultural deviance. David Looff (1971), a child psychiatrist, is perhaps the most restrained of these authors in his tendency to characterize Appalachian culture negatively. He recognizes the need to understand local culture from the members' perspective, and he frequently demonstrates sensitivity and insight in portraying Appalachian people. Yet, in the end, he resorts to a culture-of-poverty interpretation of causation and blames the "overly close families" of Appalachia for the various mental problems he sees in his eastern Kentucky clinic, including especially school phobias, overly dependent personality disorders, and conversion reactions. Looff attempts some balance in his approach, however, by noting, for example, the absence of certain disorders based to some extent on extreme emotional deprivation in infancy.

In the collection edited by psychologist and psychiatrist Joseph Finney (1969), we find a much greater tendency to type the entire "subculture" in the region as deviant; in his introduction, Finney labels Appalachia a "culture of conversion reaction or hysteria." One of the participants at the conference on which the volume

(Finney 1969) is based, Rena Gazaway, presents a description of a "sick" community in eastern Kentucky characterized by chronic poverty and hopelessness (see also Gazaway 1969), a community which fellow conference participant Oscar Lewis accepts as having a "culture of poverty." In an instructive discussion following Gazaway's presentation, disagreement emerges among the participants regarding the idea that the people of "the Branch" are mentally ill and the relative significance of internal versus external causes of their maladjustment. The study by social workers Polansky, Borgman, and De Saix (1972), on the other hand, contains no such qualifications. The authors summarily list a number of cultural themes in Appalachia which are judged in a clinical sense to be "regressive," including dependency, delusions of fusion (that is, unity), inexpressiveness, and fatalism. These perceived predispositions lead to the development of an "apathy-futility syndrome," which Polansky and his colleagues find characterizes the low-income mothers they studied in western North Carolina and north Georgia.

Two of the most derogatory and stereotyped pronouncements about Appalachian people are found in articles by sociologist Richard Ball (1968) and psychiatrist Charles Goshen (1970). Ball (1968) labels southern Appalachia "an analgesic subculture" distinguished by nonrational "frustration behavior" which is not goal-oriented and includes traits marked by fixation, regression, aggression, and resignation. Ball relies on rat studies in experimental psychology and an environmental model to support his claims. Goshen (1970), in contrast, offers no outside sources to support his description of two lower classes he identifies in Appalachia. He characterizes the lowest class of "cultural primitives" or "hillbillies" as "fundamentally uncivilized people" with "infantile speech," "weird, primitive" religion, frequent drunkenness and violence, and "clannish" families whose boundaries are blurred by illegitimacy and incest. The second lowest class of "traditional farmers," Goshen judges to be of better peasant stock but still pathologically unambitious. His diagnosis that these two classes of people are in a psychiatric sense "schizophrenic" and "psychoneurotic," respectively, would be laughable if it were not for the fact that the article appears in a medical journal.

All of these studies, including some of the major works on Appalachian mental health, share a similar approach in that they blame the Appalachian people, their life style, and their values for the poverty and mental illness found in the region, rather than recognizing the institutions and processes deriving from the larger society which significantly shape conditions found in Appalachia. In addition, these studies tend to couch their cultural bias in psychiatric and clinical language, characterizing Appalachian culture in general and people's behavior in terms such as "conversion reaction syndrome" or "apathy-futility syndrome," while individuals are characterized as "delusional," "schizophrenic," or "neurotic." Not only are these presumptuous judgements based on limited studies, usually of the most isolated and poverty-stricken people and communities in the region, but because they employ medical terminology and are often written by authors having medical training, the studies take on the cloak of "science" and may be uncritically accepted as objective and factual. The topic of mental health in Appalachia deserves more balanced treatment from a broader perspective which takes into consideration the larger social, political, and economic context.

Conceptions of Culture

One of the unfortunate consequences of the attack on the culture-of-poverty model in Appalachian Studies has been to reject the concept of "culture" in favor of more purely macrosystem political and economic factors which structure life in Appalachia. Yet, it is imperative to recognize the importance an informed concept of culture can bring to understanding and improving human services, including mental health care, in the region. "Culture," in the anthropological sense, refers to a set of ideas and behavior which is learned, pat-

terned, and passed on from generation to generation. A culture is never totally unique, always sharing some traits with other cultures at a similar level of social organization. Moreover, cultural groups which share geographic boundaries, historical experiences, or ethnic heritage often are alike in many ways. Nevertheless, the pattern of traits which characterizes a particular cultural group emerges as distinctive and enduring.

Thus, life in rural Appalachia, marked as it is by egalitarianism and a concern for "neighborliness" and reciprocal exchange, has much in common with life in other rural areas of the United States, especially the rural South, and, indeed, with small-scale farming societies everywhere. Similarly, poverty and economic disadvantages have the same kind of effect on Appalachians as they do on other peoples, causing feelings of powerlessness, for example, and a concern for present-time as opposed to planning for the future. The qualities which distinguish Appalachia as a cultural region, however, stem more from the relatively homogeneous national origin of settlers in the 18th and 19th centuries, the majority being immigrants from Great Britain, and from a common historical experience, especially the extractive nature of early industrialization and the relative social isolation until the mid-20th century. Cultural traits such as a regional dialect (Wolfram & Christian 1976), a common religious orientation (Ford 1962), and the significance of the large "family group" in regional kinship organization (Brown 1952) help to create the distinctive nature of Appalachia. Moreover, the opposition perceived by and between Appalachians and "outsiders," fueled by the existence of positive feelings of cultural pride as well as pejorative stereotypes, contributes to differences in identity.

Where the culture-of-poverty model goes wrong, then, is in designating traits of socioeconomic origin as a valued cultural pattern and, furthermore, attributing final causation to the culture. An understanding of cultural differences leads to a better understanding of the context within which groups of people interact and adaptively change through time. In terms of mental health, it can reveal the client population's perception of how and why people get sick and methods of appropriate treatment, all of which can, and usually do, differ from the mental health professionals' understanding of the process. "Culture" necessarily remains, however, a mediating factor in explanatory models; it is not usefully conceptualized as the final cause of human behavior.

Culture-of-poverty writers have not been alone in their tendency to designate Appalachian culture as "final cause" in trying to interpret the behavior of people in the region. Health and mental health professionals in Appalachia may also resort to blaming the culture for any difficulty in administering treatment (see Sovine 1988). Alternatively, health practitioners may adopt and manipulate native cultural perceptions (such as the concept of "nerves") rather than recognize the social and economic origins of illness (Van Schaik 1988). Either approach tends to obscure the nature of illness for both patient and health practitioner and can be used to justify a lack of professional action. A more informed concept of culture, on the other hand, can sensitize the therapist to the context of the patient's illness, may improve patient-practitioner communication, and should serve to empower both the patient and the mental health professional.

Current Mental Health Issues in Cultural Context

In the following section, I discuss my perception of the current issues in Appalachian mental health within the broader cultural context to which I have referred. In particular, I emphasize the significance of several aspects of the Appalachian sociocultural system. These include certain core values in Appalachia (especially egalitarianism, individualism, and personalism), a social organization in which family and kin are fundamentally important, a distinctive religious orientation which reinforces core values and a value of the larger social group, and

attitudes and beliefs concerning mental illness and its treatment. I have organized my remarks on mental health issues by focusing, first, on the cultural context of Appalachian beliefs and behaviors regarding mental health and, secondly, on the institutional context of mental health services in the mountains.

A. The Appalachian Context

An understanding of the Appalachian cultural context for mental health issues must be based at this point primarily on leads from studies of other cultural minority groups and a broad interpretation of the few ethnographic studies of Appalachian communities found in the literature. The general topic of stress and coping in Appalachia is dealt with first in this section, followed by a discussion of the Appalachian ethnomedical system.

As I have mentioned, social, economic, and cultural indicators, coupled with relatively recent and significant processes of social change including migration and return migration, modernization, and urbanization, would lead most observers to conclude that Appalachians must suffer from high rates of stress. Interestingly, ethnographic studies in the Appalachian region generally describe well-integrated individuals and communities. Exceptions include the very poor and certain areas such as mining towns with unstable mono-economies. In other areas in Appalachia, it is likely that natural support systems, based on family and a deeply felt sense of community, buffer the stresses encountered by individuals (Beaver 1986; Keefe 1986). Yet, despite the early interest in family and kinship in Appalachia (e.g. Brown 1952), we know little about the way in which the Appalachian family mediates stress. On the contrary, the Appalachian family has all too often been criticized by outside investigators as oppressive, promoting dependency (e.g. Weller 1965). Nevertheless, studies indicate that it is those individuals whose family networks have been severely disrupted, especially by migration, who appear most at risk for acquiring emotional problems (Halperin and Slomowitz 1988).

One consequence of ignoring the special cultural context of Appalachians has been the tendency to overlook problems of cultural identity. Despite acknowledgement of the negative stereotypes for Appalachian people (as found in the labels "hillbilly," "redneck," and "briar"), these are often interpreted merely as labels related to social class and the relative poverty of Appalachians compared to the rest of the nation (Walls 1978). Yet, it has become clear in my work that these forced identities are cultural as well as socioeconomic in nature, for both the stereotyper and the stereotyped. In fact, as I have pointed out elsewhere, it is middle class rural Appalachians who appear to suffer the greatest ambiguity in cultural identity (Keefe 1985). For, while they tend to be closely tied to family, community, and an Appalachian cultural group, their middle class status blurs many of the cultural differences which set rural Appalachians apart from mainstream Americans, and they are often caught in between -- lacking a strong identity as Appalachian, while being perceived as different nonetheless by non-Appalachians. The growth of an individual's cultural and social identity is interconnected with the development of self-confidence, self-esteem, and higher levels of achievement and should especially concern us when dealing with youth and educational issues in Appalachia.

An important concept in medical anthropology is that of the ethnomedical system, which refers to the pattern of culturally-shaped beliefs and practices associated with health, illness, diagnosis, and treatment. Although there has been no in-depth study of the ethnomedical system in Appalachia, several works provide insight regarding the perception and treatment of mental illness in the region. Family and religion, often interwoven as rural kin groups generally attend the same church, provide the basis for the informal helping system available to Appalachians who experience emotional problems. The church provides a familiar and meaningful context in which confession, catharsis, and ritual healing are frequently relied upon in times of crisis (Kane 1974). Several authors point out that Appalachians are

more likely to designate spiritual causes for emotional problems and may therefore be more likely to see the need for religious-based healing (Humphrey 1988; Keefe 1988). At least one culture-bound syndrome, "nerves," has been described in the region (Van Schaik 1988). Not easily equated with accepted psychiatric categories, "nerves" is best understood as a culturally-defined illness associated with poverty, general ill health, and high-stress conditions and which allows the afflicted legitimate relief from social responsibilities, at least temporarily. The illness "nerves" also illustrates the general tendency for rural Appalachians to experience their mental problems as physical problems and to prefer medical treatment for the somatic symptoms (Van Schaik 1988). Illness labelled "mental" appears to be even more stigmatized in Appalachia than in the larger society, perhaps due to the religious implications concerning retribution for sin and behavior inspired by the Devil (both concepts contributing historically to attitudes toward mental illness in American and Western society as a whole). Appalachians prefer to adopt a medical model for illness in general, including mental illness, which leads to the expectation for an immediate diagnosis, medication, and cure, and disappointment if there is failure to find quick relief (Humphrey 1988; White 1988). Reliance on a medical model also means that physicians, health clinics, and hospital emergency rooms act as significant interceptors for mental problems in Appalachia.

B. The Institutional Context

Those who have examined mental health services in the mountains are quick to note that the rural way of life results in the relative inaccessibility of professional mental health care. There have been suggestions to increase home visits and broaden the base of health care in centralized clinics to include mental health care, as well as to incorporate greater attention to mental health care in the schools and through satellite clinics. Partly because of this inaccessibility, we would expect mental health services to be relatively underutilized by mountain people, and some studies do suggest this (Efird 1988). For the most part, however, studies of the attitudes toward and use of mental health services in the mountains are yet to be done.

In an exploratory study I did on mental health clinic use in western North Carolina, I imposed a cultural marker on the clinic population, using birthplace in the Appalachian region as an indicator of Appalachian versus non-Appalachian heritage (Keefe 1988). In that study, Appalachian men and the middle aged emerged as more at risk for mental health treatment than their counterparts in the non-Appalachian population. I would suggest that this is related to the rapid change (especially in-migration and the development of tourism and service industries) occurring in the region and the relative loss of social and economic status in what would otherwise be the dominant segments of the native society. Migration of non-Appalachians into the region has also resulted in competition for mental health services, among other things, and this study also suggests that mountaineers may be less and less successful in the future in gaining access to mental health services when they are deemed necessary.

Sociocultural differences between Appalachians and non-Appalachians have perhaps their most profound impact in the institutional context when we consider therapy and therapists. It has been observed that Appalachians are more likely to perceive institutions, social agencies, and professional helping agents with fear and suspicion (Cole 1988; Humphrey 1988). Because of the unequal historical nature of their interaction with outsiders and authorities, Appalachians have learned to approach with caution those who say they have come to help, including doctors, social workers, and therapists. Given that these professionals are frequently not native Appalachians, they bear the burden of being perceived by the local population not only as outsiders but also as different by culture and socioeconomic status. It is equally true that oftentimes these professionals are in fact culturally insensitive to the people and the region (Plaut 1988). It

is little wonder then that agencies, including mental health services, tend to be avoided by native Appalachians.

An examination of the value system in Appalachian culture indicates three core values which especially affect the people's social interaction with and perceptions of the helping professions. These interrelated values are egalitarianism, individualism, and personalism. They stem in large part from Appalachians' recent rural "frontier" heritage and the distinctive religious system which developed in the mountains (Beaver 1986; Humphrey 1988). Given an egalitarian ethic, there is a dislike of authorities and institutions which set out to control the rights and behavior of others. While there is a social status hierarchy evident even in the rural areas, the ideal of equality is the one expressed publicly. Those who set themselves apart as being higher in status are perceived as "uppity" and sanctions are imposed upon them. Individuals are admired and judged on the basis of their personal achievements and qualities rather than as members of social levels. As members of a small face-to-face society, individuals expect to be personally recognized and dislike impersonal treatment. In such a social system, "strangers" can have little impact.

These Appalachian core values are directly at odds with those in the health care professions: the value of hierarchy and status differences, a focus on the disease as opposed to the individual, and an organization promoting formal and highly specialized impersonal interaction. Clearly, those health professionals who modify their approach to mesh better with Appalachian values will be most successful in the mountains. Recent research, in fact, suggests that health care might be promoted by actions more consistent with Appalachian values, such as including the patient as a participant in making treatment decisions and working with the individual patient as part of a larger social context. While we can assume therapist-patient communication is difficult in Appalachia, given basic value differences, there is little in the literature on this topic, and much research remains to be done.

Cultural differences in general between therapists and clients in Appalachia should become a significant focus of future mental health research. Therapists in the region are often non-Appalachians with little experience in Appalachian culture. While the cultural differences are often recognized, their existence may simply be used as an excuse for the failure of treatment rather than as the basis for creating effective treatment (Sovine 1988). Furthermore, Appalachians may be diagnosed and treated without the cultural sensitivity one might hope would accompany the situation. I have suggested, for example, that Appalachians are more frequently diagnosed as having severe mental problems, in part because of cultural difference in the evaluation of symptoms such as hallucinations (which may be positively valued in a culture where the supernatural is perceived as immediate and personal and people expect to hear the voice of God and may visualize Satan with equal clarity) (Keefe 1988). Professional mental health care incorporates a preference for rational, verbal treatment, but there is ample evidence that this is less successful with less educated, less urban populations. Given the additional cultural preference of Appalachian people to deal with conflict indirectly, it should come as no surprise that verbal therapy is reported to be relatively unsuccessful with Appalachians and, moreover, that drug management is prominent (White 1988). I would hope, on the other hand, that innovative culturally-appropriate modes of treatment might be tested in the future. These could include practical behavior modification or more ritualized emotionally-based forms of healing. Needless to say, culturally-sensitive training programs must also be developed for mental health professionals working in the region. An additional outcome of these programs undoubtedly would be the emergence of more research in which Appalachian mental health is considered within the broader cultural context.

Conclusion

Much remains to be done in the study of Appalachian mental health, both in the

critical evaluation of previous culturally biased work and in the establishment of culturally relevant programs of research and training. Naturally, I would hope that anthropologists would play some role in these developments. But I also recognize the need for all disciplines connected with the field of Appalachian mental health to incorporate a culturally sensitive approach. This has occurred to a much greater extent in mental health studies involving other minorities, such as Blacks and Hispanics, largely because there has been a concentrated effort to recruit members of those groups into professional mental health research and training programs, many of which specialize in ethnic mental health issues. If we are to invigorate the field of Appalachian mental health, I believe we must work toward developing culturally appropriate programs which will attract and make it possible for large numbers of Appalachians to enter careers in mental health.▪

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THE NEW COUNTRY DOCTOR

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Ray Turner, Moderator: On behalf of the Southeastern AHEC, I would like to welcome you to this panel discussion. Our intent is to present a panel of young physicians who have entered practice during the last five years and to present their perceptions about practicing medicine today in eastern Kentucky. Two of the panelists are originally from the communities where they now practice, and two are from outside Kentucky.

What was your idea of Appalachia before you came to the area? What were your goals and expectations?

Dr. Artie Ann Bates: I had always planned to come back to the mountains and practice. That was a given in my career plans from the time that I left the mountains to go to college. When I had a child and he was at an impressionable age, I felt he would do better in a rural area. That made me decide to move back to the mountains when I did.

I did not know what to expect from a medical practice in the mountains. My premedical and medical education had been in urban areas. I had been away from the mountains for almost twenty years. I had lived in a city almost as much as I had lived in the country when I went to Hindman to work with Grady Stumbo.

However, I expected it to be a rich experience, and it was that. Working with Grady helped to congeal all my medical knowledge into a working, functioning knowledge. He made it a reality rather than a dream. It definitely was reality when I had a patient who was obviously having a heart attack. I said to Grady, "He's having ST [electrocardiographic] changes, he needs to go the hospital." And Grady said, "OK, if he'll agree to go." I had never encountered such an attitide in the city. Everyone wants to go to the hospital -- nobody would ever object. I went back to this patient, and sure enough, he said, "No, I am not going to the hospital. I am going to stay at home." This was the kind of thing I had to deal with early on as a doctor in the country. Frequently these patients went home and did quite well. I found that nothing was completely black and white.

With regard to my philosophy of medicine, I think the physician is a healer and especially a teacher. So I try to explain to my patients why we need to do this therapy. I try to explain to them why they should not eat salt bacon or why they should get out and walk every day. Though that doesn't work 100% of the time, it does improve their compliance with what I want them to do medically.

My office sprang from the desire to gain some freedom in my medical practice, work in my home town, and be close to my son as he went to school. It has been a very positive experience -- with a lot of problems and financial mistakes, from which

[Ed. note: This panel discussion, sponsored by the Southeastern Area Health Education Center, took place during the first evening of the conference. It was tape-recorded and later transcribed and edited for these Proceedings.]

I've learned a lot. We have renovated an old store building. The office is full of antiques that I pulled out of my father's smokehouse, because I wanted our patients to feel comfortable, at home in the doctor's office. I think that if I get too modern, then it's not what I want to do there.

I also work in the emergency room at Hazard to stay in contact with other doctors, because I'm sort of isolated in Blackey. So far, I'm happy practicing there.

Dr. Tom Benzoni: My arrival in Kentucky was actually rather abrupt. As of July of 1987, I had never heard of eastern Kentucky as an entity. I knew Kentucky was somewhere near Florida -- I guess eastern Kentucky must have been Georgia. My wife is a National Health Service Corps scholarship recipient, and she was assigned to Breathitt County. We got a telegram in the mail one day and hauled out the map and found Breathitt County. That was my introduction to eastern Kentucky. It was very abrupt, it was very different.

I was raised in an area, though, that was not so different geographically. Upstate New York has the rolling hills, not quite as sharp, but not terribly different. Culturally, socially, it's very different. As for education and educational expectations, it was like day and night. The same with my midwestern training -- I was for thirteen years in the flatlands. The coal companies think they know about making flatlands, but they haven't seen a thing. If they'd go out to Nebraska, they'd learn about flatland. That geography makes a lot of difference.

My training at Creighton and in Detroit at Pontiac has trained me rather well to deal with the problems of eastern Kentucky. I was trained to practice in a small town and to be able to do pretty much everything myself, everything from emergency streptokinase injections to delivering babies and caring for a very sick neonate until I could get more help on the way. It's been a bit of a hardship, because of the current crisis that we have in liability. That's depriving people in a four-county area of eastern Kentucky of some very needed health care.

I didn't have any big psychological or medical adjustment when I came here, but one of the biggest adjustments I had springs from my training. At Creighton, a big medical center, you're in family practice, you're the low man on the totem pole. At Jackson, you're the high man on the totem pole. That change is very sudden and very complete.

All in all, though, I've enjoyed my time here, and I'll continue to enjoy it. My wife has three years left on her scholarship. I can't make any commitment beyond that. I'll just have to wait and see.

Dr. Joe Florence: I'm a National Health Service Corps recipient. My stay was to be for two years in North Carolina. In March before I was to go, I got a letter that said, "You are going to Kentucky." I'd never been to Kentucky, except to go to Louisville once for a conference. So I had to find where Kentucky was and make some arrangements to find a practice. I came to Kentucky, looked at three places, and I said, "Well, this is the best of the three. I'll take this one. There's no commitment here. I'll be gone in two years, and back in North Carolina where I want to be."

It's been five years, and it's been real serendipity. When I first came to eastern Kentucky, it was quite a culture shock for me. The smallest place I'd ever lived had a population of 100,000. Fortunately, I was trained in a practice that trained me for both rural practice and urban practice. Though it was in Roanoke, Virginia, with a population of 100,000, it served a lot of rural communities. We had the big hospital practice, but we also had a lot of practice in rural communities. That made the adjustment to the professional aspects of eastern Kentucky fairly easy.

Professionally, eastern Kentucky was a gold mine. It was extremely enjoyable when I first came there, and it remains so.

Socially, I was a fish out of water. I really didn't know what to do with the stoker coal furnace that I had, because I'd never seen a stoker coal furnace. Everybody just expected me to know how to use it. It took me a while -- about four years, really. Aside from minor things like that, which at times were major -- when it's 20 degrees below zero, on the coldest night of the season, and your heat goes out -- the situation has been very good to me.

My philosophy of medicine is to treat people as people. I don't find the people in eastern Kentucky any different from anybody else, as far as their health care needs. Sure, they have different educational backgrounds, different religious backgrounds, but their health care needs are the same, if not greater than those of people in the larger cities who have had more health care opportunities.

One of the problems in eastern Kentucky is that the health care opportunities have not been available until recently. I've found that in the five years that I've been there, that has changed very rapidly. Now it's a real plus and it's a real joy to practice there. We practice modern medicine. We're not doing the witchcraft and what was perceived of as the poor quality medicine in the past. I not really sure if it was all that poor quality, because some of the best doctors I know are the older doctors that are practicing there. I think the idea that the quality of medicine in eastern Kentucky was poor came from its inaccessibility. The older doctors that practice there are some of the best doctors I've ever seen. I'll put them up against anybody here.

Dr. Greta Combs: I was born at Homeplace Clinic, when it was a hospital. My old chart is still there -- you can see what I was like when I was a kid! But I really hadn't planned to go back to Hazard.

This is a switch: Dr. Joe Florence here talked me into coming. When you think about recruitment and how you get people to come to a place -- Hazard, Jackson, wherever -- it's a big issue. Not everybody is as persistent as Joe Florence. My mom is a patient of his, and so he found out that she had a daughter who was in family practice. Joe finally convinced me to come, and I'm glad I did.

I think that when I decided to go, I knew I would like to live there, because it's my home. But I wasn't sure what the practice would be like. I thought, well, maybe I'll just go, and I'll hang out. In a year, if I don't like it, I'll just go away. Of course, you can't do that, because you get there and the people love you, and you love the people. When you get invested in it, you can't go very easily.

I felt I wanted to do something worthwhile, and I wondered if there was a greater need in eastern Kentucky. I now believe there is a greater need, because not just anybody will go there and practice. Things are getting better there, and what we want to do is make sure they keep getting better. What I remember about health care when I was a kid is totally different from what it is now, and I'm not that old. Things have changed a whole lot -- it's wonderful! What we want to do is to have new people come, have young people come, and keep things improving. There is a real need.

The other thing I used to wonder about was whether I could really change anything. Maybe I shouldn't even change anything. Maybe I should just go with the status quo. I worried a lot about patient insistence on penicillin shots and valium. It is a big issue, and it's hard, it's something you have to wrestle with all the time, maybe more so there than other places, I'm not sure. This is the only place I have ever practiced.

But I do think that it's very rewarding to work there, because there is such a need. Even if you never did anything spectacular, you would be helping so much by being there and listening, giving people a place to go and to talk. People used to have to drive miles and miles to get anywhere. Now, health care is so much more accessible, and there are so many more physicians. There are a lot of good things

about practicing and living in eastern Kentucky.

Now that you have been there one, three, or five years, what are your perceptions now, professionally, socially, culturally?

Dr. Greta Combs: We were talking about this the other night. Somebody said, "What do you do when you wake up and look out the window and say, 'Oh my gosh, I'm here. Now what do I do?'"

I want to talk about the fear that professionals have of being professionally -- not socially or culturally --isolated. "What am I going to do when it's the middle of the night, and I'm the only one around?" It depends on what kind of residency program you come from. Most of us, though, have a lot of help in our residency. So the fear is always going to be there. But when you go to a place like eastern Kentucky, you think, "I just don't know...there might not be an obstetrician anywhere, there may not be a cardiologist, there may not be anybody but me. And I don't know if I want to deal with that. And I don't even know if I can."

It depends on what kind of residency program you came from -- most of us had a lot of help in our residency. But that fear is always going to be there as you go out there and start working, and within the first two or three days, something real scary happens. You begin to find out what your resources are, and who the professionals are that live near you that you can talk to. But then you wonder, "Well, they may be practicing in Hazard because they're not any good. Maybe that's why they came here. Why aren't they in Lexington?" So then you think, "Oh my gosh, I'm going to send this patient over there, and they're going to do something terrible." Then you feel silly, because here you are just out of your residency, and how could you even doubt anybody else? -- probably a good thing to remember.

What I found was a very sophisticated system, with specialists, a wonderful hospital, and all sorts of support services. I was amazed. After a while, I called fewer and fewer physicians in Lexington. Since I've been there, we've gotten more and more specialists. Now you can't compare Hazard to Blackey or Jackson or Campton or most other mountain communities. There are 42 people on our hospital medical staff, and we've got a CT Scan and even access to an an MRI. It's just very sophisticated there.

So here I'd been thinking I was going out into the wilds of the world. I was embarrassed to find out that I wasn't. I thought, well, huh! I'm not doing things so great. Here I am, just like anybody else. It was wonderful on the other hand to find what was there. I want to share that with people who maybe think that there isn't anything out there. Young professionals may say, "I'm not going there, no way. What am I going to do? I'm not going to have any help."

But we have urologists, neurologists, ophthalmologists, all sorts of people to help -- and they're good, and they'll help you. It's not that way just in Hazard. We also have telephones that work -- most of the time! We have an ambulance service, which could be better, but it's there. We have a wonderful helicopter service to the University of Kentucky, which has turned around care for trauma in our area --acute heart attacks and things like that. If all of you were medical students, I'd say, "Don't be afraid. When it comes time to go out there, don't think that it's going to be hopeless. There may be a lot more support than you think."

Dr. Tom Benzoni: An area dear to my heart, and one that Greta touched on briefly, was the question of competence of local colleagues. As we got a medical staff together for the opening of our hospital on July 11, I had the arduous task of going through all the medical staff applications. It was really interesting to see who is out there. Until we put in a hospital in Jackson, nobody knew what the docs out

in that area could do. There's a lot of training going to waste. We found the vast majority of the doctors are highly competent.

And interestingly enough, I found -- I believe without exception -- that the docs are smart enough to figure it out, which to me also speaks to their competence. In a city such as Lexington, you know as well as I do, you can hide a bad doctor. You can't in eastern Kentucky. Everybody knows who they are. Oh sure, they will get their share of people who come in and get a penicillin shot every time they have a cold, or valium, or the other things that Greta alluded to. But they generally won't apply for hospital staff privileges, they won't want to work in the emergency room, they won't want to deal with the acute care problems. It's neat -- doctors will self-triage. We have a population of probably about 20 primary care docs in the Jackson area, and almost without exception, they've gotten involved with the hospital, they've gotten interested in it, and they're working very well with it.

But before we had the hospital, there was a very interesting question. I came there from a city with 16 hospitals. If I had been in a car wreck, the EMTs [ambulance attendants] would not mess around with IVs. I would have been three minutes from a hospital. It was no big deal. But I come to eastern Kentucky and I'm in a six-room clinic. Here, you don't ask distance in miles -- you ask distance in time. This is a very important concept. Somebody who may be four miles away may be two miles up a ravine, and you may have to drive through a stream bed to get to them, and they may have to be bivouacked out on a pole stretcher, if they can't walk. So four miles can be two hours.

But then the frightening question is, what if I'm the one in the accident? Or what if my wife and kids are the ones in the accident? And that has an impact on the feeling of isolation that Greta was referring to. And this was before we had a health facility where you could take care of this problem. This is a pressing question even for businesses, for recruiting other industries. Who's going to want to move their executives to a place where, if they have a heart attack, they're going to lie there and die? This concern is being addressed, and things are changing. I'm very happy to report once again that UK has been very cooperative, we're working closely with the Department of Cardiology and airlift services, and we're actually getting good survival out of heart attacks. We used to have 25- and 30-year-old guys dropping dead out there, and we're making a lot of changes in that regard. In eastern Kentucky, that's powerful medicine, to have a heart attack and live. People are not used to that.

Dr. Joe Florence: The facilities in eastern Kentucky have often been criticized, particularly by medical students and residents in Lexington. I now am working with a lot of those medical students and residents. Hopefully over the next few years, we'll be able to change that attitude.

The facilities we have in eastern Kentucky are really equal to anybody's, and the doctors there are extremely well trained. In our 16-county area, we've recently done a manpower survey. We have 355 doctors there; 65% of them are in primary care, and 35% of them are specialists. Seventy-five percent of these specialists are foreign medical graduates. You say, "Oh, terrible doctors." But if you look at their training, they're the best of the best. They are the best their country has to offer.

If you look at the Filipinos, say, the only Filipinos that can come to the United States are from the very best medical school in the Philippines. Of the Philippine doctors that we have on the medical staff, one would like to go back to the Philippines, but he's afraid to go back, the way the political climate is there.

We have on our medical staff an oncologist who is as good as anybody in Lexington. His oncology board scores were in the 95th percentile; he's from M.D. Anderson Hospital, one of the best oncology

places in the country. And he's in Hazard. We also have a surgeon in Hazard who had one of the highest scores on his surgery boards in the nation. Now tell me if he's not good! He's excellent -- and most of the doctors are excellent.

As Tom Benzoni said, if they're not excellent, they leave. You can see the pattern: if doctors are not good, they get kicked out. The patients kick them out, or the physicians themselves kick them out, but they get rid of them. You don't have to go through all the special committees that are available in the hospital to say, "You no longer have privileges in the hospital." That's never happened in the hospitals that I've seen in eastern Kentucky. These guys leave long before anything is ever written down on paper about them. Bad ones don't stay long, and they are not part of the medical community that I practice with. I am very pleased with the medical community I practice with and feel very good about it.

Now we don't have all the specialists that I'd like to see, but you don't have all the specialists in Lexington either, that I'd like to see. We have specialty problems sometimes in eastern Kentucky, and sometimes you have to go to Louisville or Cincinnati to get treated, or the Mayo Clinic, or to NIH [National Institute of Health], just as you would in Lexington. When you get an unusual case, then you have to find a very particular specialist.

The facility that we have -- the new hospital in Hazard -- has gone through an interesting transition. When I came to the hospital five years ago, it was a relatively old building. The facilities were terrible -- the walls were cracking, the place was dirty, the paint was peeling off the walls. Two years later, we're in a brand new building, a modern, $26 million facility that is comparable to any hospital I've seen anywhere. It's a very well built, very well planned facility, and we're going to treat 210 patients there. We've got a CT Scanner, we've got radiation therapy there, we've got an MRI down the street. We practice modern medicine in Hazard. And it is becoming a referral center, which I think is interesting. With these facilities available, former Hazard natives living in Lexington return home to get treated, coming to Hazard from Lexington, so they can be with their family. I think it's an interesting switch.

There are some very subtle things happening in the area, such as the new roads, the telephone system, and the TV satellite antennas. These things are changing the face of Appalachia, and they are opening up Appalachia so it is accessible. It's no longer an hour's drive into Hazard, it's 15 minutes. Anybody can reach me 24 hours a day, seven days a week. Sometimes I hate that, but it's possible to do that with telephones. TV has opened up the community to the rest of the world. The kids are no longer just the little hillbillies up in the hollers that see only the hollers. They're seeing the same sort of stuff that everyone else is seeing in the rest of the world. They are adapting, and Appalachia is changing very rapidly right now. And in turn, the health care facilities and services are too.

Dr. Artie Ann Bates: I want to talk about what a doctor coming to eastern Kentucky can look for with regard to employment opportunities. Basically the options are to open a private practice or to work for an established corporation, such as ARH [Appalachian Regional Healthcare] or the Mountain Comprehensive Health Corporation. I've done both.

My first practice was with Grady Stumbo, at East Kentucky Health Services, an established corporation, with an administration that makes most of the decisions. Everything other than the basic medical care is decided by an administrator; we, the physicians there, actually have very little say-so, in regard to what the office call charge will be, what sort of X-ray equipment will be available, which particular person will be hired -- the nurse, the receptionist, or whatever. The physician has no choice in that. I think the same is true with ARH, which is obviously a much bigger corporation. That decision may even be made at the corporate

headquarters in Lexington.

Then there's the big switch of going into private practice, where I make all those decisions. I do whatever I please. If I want to hire someone, I do. If I can't work with that person, I can ask him or her to leave, within the terms of our original agreement. So I like that aspect of private practice.

I think most of us go into medicine because we're pretty strong-headed. We like to be independent and make our own decisions. It can be very stressful when someone else is telling you, "No, you can't do that with this patient, because our system doesn't allow you to do that....No, you can't tell a mother that she won't get charged when she brings her baby back to have his ears checked again," even though it's going to be $30 when she does, and she has no insurance. So private practice is nice in that regard.

Also, I have to make the decisions as to what supplies we buy, what sort of extra machine we will have. Then I have to worry about how much money is in the bank. So there are drawbacks as well. I don't have someone in the central office telling me to let them worry about that -- I have to worry about how much money is in the bank myself. I decide if I'm going to close the clinic for the day and come to this Appalachian Health Conference, knowing that no money will be coming in, because I'm not there. I choose the decor and the music. If a patient isn't satisfied with my services or the costs of the office call, I am the one who has to deal with it.

There are advantages and disadvantages, but the thing I like the most about private practice is the freedom to do what I want. I don't really mind taking the consequences, because I'm learning how to deal with them and how to prevent the unpleasant consequences. There was a time, with private practice, when I thought about selling out. I thought it would be so much simpler to just sell my clinic to Mountain Comp or ARH, to just get put on a salary and not have to worry about all this stuff.

But the freedom is a very sweet aspect of the practice, and so I would certainly encourage any physician to consider that. I think there are many opportunities for private practice in the mountains. As Greta said, patients appreciate my being there. They say, "We trust you, because we know you. We appreciate your coming back home. That makes us feel like you think we're important." There's a lot of reward in working in such an area.

Dr. Tom Benzoni: The drive to be your own boss is probably one of the biggest reasons that those of us who go into medicine enjoy it. It's ego gratification -- there's really no other term for it. However, in a place like eastern Kentucky, there's a simple fact: there aren't many people who want to go into private practice there, and that's where corporate medicine has its place. There are pros and there are cons, as with anything. I practiced for a while within a corporate structure. Now I'm working as a private contractor with a hospital, running the emergency room.

In corporate medicine, you've got the support of a large organization. It can pull you in, send you where you're needed --or send you where they want you -- usually the two will correspond. You have access to more facilities. When I worked for Mountain Comp, we had access to facilities throughout the region, clear from McRoberts, up through Jackson, Booneville, and Owsley County.

There's a financial support network that's very important. The guy that sells the X-ray film really doesn't care if you practice in eastern Kentucky. He really couldn't give a doggone about the people in Appalachia. He's in Rochester, New York, with Eastman Kodak, and he's got to get paid, or he's not going to ship you your next set of X-rays. You might as well face it, it's a fact. The large corporation just purchases a bunch of it, and you don't have to worry about it.

The cons: when you're with a large corporation, you're protected from reality.

The reality is that this patient who comes in doesn't have the money to pay. And maybe that's the reason her high blood pressure isn't treated. She may be lying to you about whether she's getting her medication. Patients hate admitting to the doctor they can't afford it. They just hate to say, "I can't afford those drugs you gave me." So they won't. They'll lie to you, they'll tell you they take it, so you keep piling on medications. You wonder why you can't cure them.

There's another problem with corporate medicine, and that is, you don't have an incentive to stay when your time commitment is done. You're there, you've put in time, you've earned a salary, but you're isolated and protected from that all-important feeling that you are a vital part of the community. Someone who's 80 miles away may be handing down your orders and hiring and firing your office personnel. You just got used to this nurse, and she got moved to that clinic, and now they send you this new person, who you need to tell what to do every time, and she never knows what to do the first time.

Anybody considering corporate medicine in eastern Kentucky should watch very carefully for restrictive covenants. This is a very hot issue with the National Health Service Corps. They're quasi-legal, they're not particularly enforceable. But if you set up a restrictive covenant, and you decide to leave the corporation to practice on your own, the corporation can tell you, "Surprise, surprise! You can't practice in eastern Kentucky. It says so right here." You're needed there, your patients want you there, but you signed a piece of paper, agreeing not to practice there for a year after leaving that corporation. It's something to watch out for.

Corporate versus private -- a personal decision, but it's a very important one.

We all hear a lot about stereotyping Appalachia and Appalachian people. Is there a typical Appalachian patient? Is there a typical set of values, behaviors, or ways of perceiving medicine? Do Appalachian patients differ from non-Appalachian patients? What has been your experience?

Dr. Joe Florence: My experience with Appalachia, when I first started here, was really one of ignorance. I didn't know anything about Appalachia -- except that I went to Boone one summer and met my wife, and I liked that. That was my only feel for Appalachia before I came here. I didn't hold a lot of the negative stereotypes about Appalachia, about the people of Appalachia. I remember something about President Johnson flying into Appalachia and sitting on some steps and talking to some poor folks. I have an aunt who worked up in Harlem, in New York City, and her picture was in Life Magazine, right along with his, treating the poor. The aspect of "poor" didn't bother me at all. My motivating factor for coming to Appalachia, for staying here, was that I enjoyed treating people. These are just people, like all the rest of them.

The thing that I found most disheartening, most shocking -- and it took me three months to realize -- was that their educational level was lower than where I had trained, and lower than I had ever experienced. I hadn't been aware of that. The people who are illiterate hide it very well. They might be illiterate or might not read well, but they function well. They certainly had the wool pulled over my eyes, because I was handing them out all kinds of literature, like I was trained to do in residency program. Then I found out that 30%-40% of them couldn't read the stuff I was handing them.

The fact that they are illiterate or poorly educated didn't have anything to do at all with their compliance as patients. If anything, they were more compliant, because they would hold onto every word you told them. They wouldn't go to a book and say, "Well, this guy says this," and "That guy says that." It's more like, "You are the authority as the doctor, and I believe what you say." I found that in

a lot of ways it's very easy to treat people who are less educated, because they don't question you as much. You don't have to spend as much time explaining all the physiology of the problem. They take what you say as dogma. That was generally what I found.

One of the aspects that I love about the people in Appalachia is that their sense of family and community is so strong. The family is an extremely important functioning unit, and they're able to take care of people within their family that you can't take care of in the city. The city nursing homes are full of these people. But in Ary, the family takes care of Grandma or the mentally retarded kid. They're just absorbed into the family, and there's no problem taking care of those people. It's really a wonderful situation, and it's very gratifying to see how strong the family ties are. I enjoy raising my kids with such a strong family community. It means a lot to me, and it's one of the driving forces that keeps me in Appalachia.

Dr. Greta Combs: I think that there are stereotypes, and I think they stem from obvious sources. Some are still there, and some of them aren't. Some of them are nice, and I hope they don't change. One of those is that people, especially the older folks, talk a lot about fatalism. At our clinic, we have a large geriatric population, so that's what I'm thinking about. A lot of the older people are real fatalistic. The bad part is that it gets you off the hook sometimes. The good part is illustrated by the wife of a patient I had. I remember talking to a man and his wife when he was dying from his lung disease. (I happened to be kin to both of them, not that that's a surprise -- I'm kin to just about everybody). I was crying because I was just so frustrated that he was dying, and his wife put her arm around me and said, "Honey, you've done everything you can." She was comforting me! And I thought how wonderful that was. I'm not sure that you find that everywhere, but people here do it a lot.

I'll say, "Well, I'm sorry I can't make you feel better," or "I can't do anything about your arthritis." And the patient responds, "That's OK, Doc. I'm just getting old," or "I'll have to learn to live with it." People do that a lot. It's frustrating to us because we're trained to do the most, and we feel they're stopping us. What we forget is that it's their life, and it's their decision. It teaches us another way of looking at health care.

Another stereotype we've already talked about is that health care is not as good in eastern Kentucky. "People need to come to Lexington to get good health care." What we're all fighting to do is to bring the standard of care up to the standard of care. People talk about that in lawsuits. What is the accepted standard of care? That's what we're all trying to do. We're frustrated when things don't go smoothly in achieving the standard. We want that stereotype to be broken, so that when people speak of eastern Kentucky, they don't think people have the poor health care that they used to. We'd like for people to think, "I can get good health care in eastern Kentucky," and they can. Perpetuating the poor healthcare stereotype causes distrust from local residents and from physicians in urban medical centers; it doscourages the recruitment of health manpower; and it undermines the eastern Kentucky physician and the medical colleges that educated them. It's a bad stereotype that we want to change.

Dr. Artie Ann Bates: Along those same lines, I had frustration sometimes when I asked a patient who her regular doctor was, or where she gets her routine female care, and she says, "Well, I get my pap smears in Lexington." As if you can get a better pap smear in Lexington than you can in the mountains! I get very angry about that. Or a patient will say, "Oh, I see my diabetes doctor in Indiana." As if to say, "I'm just a little bit too good to accept medical care from here." Or patients say, "I'm going to Lexington for my care, to UK." When they come to UK, they are taken care of by a resident. I get really angry about that. I tell them, "It's important to have a local doctor, in

case you become really sick, so that there is someone here who knows your case." There have been times when I said, "Well, you know, we all receive the same medical training. The care here is as good as there. It's the doctor who's caring for you that makes the difference."

With regard to stereotypes, there is a concept that mountaineers are on welfare, they all have a medical card, they have no teeth, they don't wear shoes, they all wear overalls, they carry a moonshine jug on their shoulders, they shoot at you from behind trees; it's not a safe place to be; don't go there; if you make somebody mad, they'll shoot you without a word.

In my own practice, I don't see that at all. As a matter of fact, probably 90% of my patients have insurance and are young adult, working families. In fact, a lot of them are coal miners of a new era, who receive safety training, know CPR, and wear goggles when they work. Most are families, where the father works with Blue Diamond or Southeast or some of these up-and-coming coal companies. They have excellent insurance. Their families are reasonably educated, and they care for their children.

Blackey is a small town -- which was in the movie called "Coal Miner's Daughter." The town has a front street and a back street, and you can cross the railroad tracks on each end, so it makes a circle. Every evening, in warm weather, people are out walking for their health -- old people and young people. They get on me and say, "Hey, doc, get out here and walk. You're telling us to." It's a very health-conscious community. I was surprised to find that, but pleasantly surprised. People are out walking, they go to square dances, they're really very active and vigorous and work hard.

You hear a lot about "nerves" in the mountains and that everybody has nerve trouble, "Oh, my nerves are killing me." But "nerves" in Appalachia applies to depression, anxiety, grief reactions, fatigue, worry about children or elderly parents. So, when I hear "nerves," I have to start asking some important questions to find out what exactly they mean by that. And then you have some people who truly, just like everywhere, are malingerers and hypochondriacs -- which is a kind of anxiety disorder.

But on the other hand, you have a lot of the old mountaineers like my mother, who says, "I don't get depressed. When I feel that way, I go out and work in the garden." She said, "I don't know when I went through menopause. I was too busy working." So, for everybody who says, "I have nerve trouble," you can find an old mountaineer who works it off. There's a lot of strength in people who are tied to the land and who work hard.

I have a few patients who don't mind coming to me and not paying, but then I have a lot of patients who come back and they maybe pay $5 at a time, or they come back and pay their whole bill at once. It's very nice, as a doctor, to be appreciated in that way.

Dr. Tom Benzoni: If I were to give one stereotype of eastern Kentucky, it's a word that could sound pejorative, though it's not intended that way: it's "fierce." They're fierce in their loyalties, fierce in their determination to do what they want, and it's really important, to be accepted as a doctor, to understand that.

If a patient goes to see Dr. Florence, there's no point telling him Dr. Florence isn't doing a good job treating him, because you're wrong. It's simple. He's a good old doc. They've known him for a long time, he must be good. He's their doctor. You actually insult their intelligence, if you're not careful with that.

The fierceness of independence has been referred to a few times here, in regard to checking out [of the hospital] against medical advice. This was something I really was unfamiliar with where I came from. The doctor said so-and-so, and the patient did it. In Jackson, it's nothing to have a young man sitting there -- he was out cutting tobacco, he comes into the

emergency room, he's having a huge heart attack, you tell him you recommend checking in, doing this or doing that, and he says, "Oh, doc, that's OK, I'll go home, my woman will take care of me, I'll be all right." There's no point in arguing with him, for he's not going to listen. You do your best, you inform him of the risks, and then you say, "Listen, here's what, we'll make a deal. I'll give you some medications. I'd like you to take these for the next few days." Try to give him the same medications you'd give if he came into the hospital. And you part best of friends! There are ways of working with what mountain people feel.

But the hardest thing that I have to work with is the reverse stereotype. "If you were any good as a doctor, you'd be in Lexington." Folks, this comes from the Lexington doctors--it doesn't come from the mountain people. You got uncontrolled diabetes? They've gone to Lexington, to those doctors at UK. "In three days they got me all fixed up." They're paying a dietitian $30,000 a year, they're having a $30-$40,000-a-year RN to administer their insulin, and they get a sheaf of papers to take home with their diabetic diet. Of course when they get home they read through [the sheaf of recipes] -- maybe they can read (we have 60% illiteracy according to the official figures in our county). "Soufflées? -- what's that?" Out it goes, into the trash. "Insulin?" Nobody bothered to teach them how to take insulin shots.

These are huge problems that we are inheriting and trying to straighten out, by getting the mountain people to teach themselves. We're doing this principally through the county health departments. They've been extremely helpful with home visits, sitting down with people, saying, "You like soup beans and corn bread? You've got a bad heart? Fine. Let's find a way to make it so there's not a lot of salt. Let's use some Crisco instead of bacon grease." You can help people to do things the way they want, but still make them feel they're in control, and not make them lose their dignity -- a very important concept.

To conclude, what would be your recommendation for a new person coming to the area? Or what would you recommend to improve health care in eastern Kentucky?

Dr. Artie Ann Bates: I think it's essential that medical schools and residency programs incorporate into their training program rural training experiences. That has to be done. As a rule, students will not do those rotations, if given the choice. I think that's a very important part of complete medical training, whether or not you plan to go into rural areas. Even if you stay in a large urban area, you'll get referrals from rural doctors with these patients, and it's important to know from where they come. In fact, home visits are very important, because it's there that you really get to know the patient, the patient's situation, and what their resources are for complying with your recommendations. I think the first and most important thing, with regard to improving health care in the mountains and improving the chances for recruiting new doctors, is that medical schools and residency programs insist on rural rotations for their students and residents.

Dr. Tom Benzoni: The preparation for med school, or the preparation of the med schools for their students, is absolutely crucial. We need to have topnotch training, a commitment to life-long continuing medical education. You've got to stay up. This conference is worth nearly 20 hours of CME [continuing medical education credit]. I can't go to 20-hour-CME conferences in Jackson. You've got to keep up with what's happening.

Schooling is such a basic, central issue, and it's not just throwing money at the schools -- it's the concept that schooling is OK. I come from a place where you're proud to get an education, and it's a very proud thing to go on to college. It has to become a proud thing here, to go to school, to get a college education, and

then to come back to eastern Kentucky and do what you do. Not outsiders like me telling them what to do -- that won't work. It has to be people from eastern Kentucky getting an education, being proud of their education, coming to UK, being held up as important people at UK, and going back to their environments.

One of the first ways that may happen, radical though it may seem, is to try to move it out of a coal-based economy. Coal is boom-bust: one year a guy may make $100,000, and the next year, nothing. There's no way he can plan for his future. We have to get into some type of a stable economy, where a guy's not worried about where his next meal is coming from. Then he can worry about educating his kids.

The changes in eastern Kentucky have to come from eastern Kentucky. It can't be a bunch of people in Lexington or Washington saying, "You guys are going to do this," and "You guys are going to do that." There are still, in the local folklore --very active local folklore, jokes about VISTA and Peace Corps people down in eastern Kentucky. That approach was very well intended, but it's not going to work. You've got to ask the people of eastern Kentucky, "Do you want a change, and, if so, what would you recommend?"

Dr. Joe Florence: As for getting doctors to the area, the doctors are coming, albeit slowly. The University of Kentucky is certainly not producing the numbers of doctors needed in eastern Kentucky. I think that's terrible, because that's what UK is supposed to be here for. If you look at the enrollments, the numbers of people that come from eastern Kentucky that go to medical school are very few. In our 16 counties, this year, five people were accepted to medical school. Those five people might come back. We had 30 new foreign medical graduates apply to our area this year. Five medical student graduates from UK -- that's not enough to even make a dent in the need for physicians in the area. We need specialists, we need specialists from the area. And we need them to be trained up in Lexington. Time and time again, the studies have shown that people from a region do go back more than other people come in. It's easier to get an eastern Kentucky person to come back than to get a New Yorker to come to eastern Kentucky and settle down.

As a country doctor now --and I like to think of myself as the new country doctor, the residency-trained country doctor -- I'm as good as anybody in Lexington. It's hard to practice medicine in eastern Kentucky, but it's hard to practice medicine anywhere in this day and age. The rural aspect is just another aspect of practice, that makes it enjoyable for me, and I love it there.

Dr. Greta Combs: I want to wind this up on a bit of a personal note. I think that's absolutely true, that you have to expose students to rural rotations, or they're never going to understand rural practice, and they're never going to appreciate it. Why would they ever want to do it, if all they ever hear are the horror stories that the attending physicians and the residents talk about? The same is true not only in the universityies, but also in private practice here in this town. If the attending and the consultants out in town don't call back and don't get to know us, the country doctors, they won't know that we're any good, and they can't pass it along. They need to make more of an effort, especially the attendings at UK Hospital. If they know we're good, then they'll tell the residents, and the residents will tell the students, and they'll stop being so snide. I can say it from four years, and Artie can as well. So that's very important.

If you decide to practice as a country doctor in eastern Kentucky, people will ask you, "What's it like to go to a place where you're scared and you don't know what it's going to be?" and they'll say, "Oh, you're doing a great thing." You may not be so sure. When you get there, you need to remember that the rewards may not be very obvious, or they may be a long time coming.

In Dr. Couto's opening speech, he included a wonderful description of a one-woman social welfare system in a rural health clinic. People like that are wonderful, but you don't have to be like that to come to eastern Kentucky. Come for a year, be there, and see what is going on. Then you get into it, and you begin to make some changes. People are so scared that they'll have to be Mother Theresa -- and you don't have to be. You can come and be yourself and do wonderful things.▪

EQUITABLE FINANCING FOR A PRACTICAL, COMPETITIVE HEALTH CARE SYSTEM

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The time has come for a logical, equitable, comprehensive and cost effective health care program in Kentucky. A Free People must be a Responsible People.

Nikita Khrushchev reportedly once remarked that Americans can be relied upon to take the most logical and effective course of action on an issue -- after they had exhausted every other possibility.

The current inadequate and fragmented status of health care delivery and financing in Kentucky illustrates Khrushchev's observation and leads to the conclusion that it is now time to take logical and effective action. It is interesting to note that there is such a system working effectively in our society now -- except it has not been utilized to serve the comprehensive health care needs of society. Such a utilization would not only satisfy practical considerations, but also implement at last the philosophical and ethical principles of most Americans about health care responsibility.

The system which is working effectively in our society now is the payroll percentage model presently utilized by Social Security. However, for it to be utilized properly for a universal private health insurance program, it must be integrated with a competitive private health care provider and private insurance delivery system, and include everyone. The rationale for this approach is founded on what most Americans seem to agree about what our health care system should be and our individual and collective responsibilities are.

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1. We all want the finest health care possible.
2. Everyone should have access regardless of ability to pay.
3. People all have a responsibility to provide for themselves and their dependents.
4. Collectively, through our governments, we have a responsibility to provide for those who truly cannot provide for themselves.
5. A private competitive delivery system will deliver the highest quality, most cost effective care with incentives for innovations and new developments.
6. The insurance system best serves to spread risks and define available services.

Unfortunately, while we seem to agree how things should be, the facts are that we do not live up to our principles. Even more unfortunate, we appear to be moving farther away from them, as the ranks of the uninsured and the underinsured are growing, and the issue of access to quality health care for the indigent is one of the most pressing problems currently facing our society.

The first two points are fundamental. No one wants to be sick, but when we are, we want quality health care. Certainly no one would suggest that a child should be allowed to suffer or die because of the parents' inability to pay. So why are there about 500,000 Kentuckians, many of them children, who are uninsured? Or 9,000 pregnant women for whom there is no prenatal program?

Those of us who enjoy adequate health insurance coverage do not live under the terrible burden of uncertainty that faces our indigent population, and it behooves us not to forget them or allow our system to continue to exclude the poor.

There are, of course, many socially

conscious health care providers and other citizens who provide for charity care; however, the issue is much larger than private philanthropy can carry.

Points three and four above, regarding responsibility, speak to the heart of our inadequate health care financing system and from them emerges the solution. The key is responsibility. The financing of health care is the current issue. Exercising responsibility and logic as to how and from whom financing is to be obtained leads us to a simple, practical, and equitable solution.

People have the responsibility to provide for themselves, their dependents and collectively for those who can't provide for themselves. This responsibility is a total society issue. Health insurance spreads the risks and provides an understandable working model.

Since health insurance is the working system for the major part of society now, it seems logical to utilize this vehicle to provide a minimum level of basic and catastrophic health care for every citizen of Kentucky. There are many people who can't afford health insurance, as it is presently structured, many who elect not to pay for coverage individually, employers who elect not to offer coverage to their employees, and notably, government does not provide for all of those who cannot pay their own way. Therefore, there are many individuals who are not providing for themselves and their dependents, and we as a society are not providing for those who cannot pay.

Now, this brings forth a critical point that exposes the inequity of our present insurance system. There is a fatal flaw in the current system of insurance premium allocation. It is not logical or equitable for every member of society to pay the same dollar amount from their income to satisfy a societal need. For example, should, and in fact, can a person earning a minimum wage of $7,000 annual income (which incidentally is the federal poverty level for a family of two) or a person earning $10,700 (which is the Federal Poverty level for a family of four) pay the same dollar amount for income taxes, police protection, or health insurance as an executive earning $100,000 or more? I view this as unreasonable; however, this is the way insurance premiums are structured.

A family plan typically might cost $2,000, which is 29% of the gross income of the family earning $7,000; 19% of the gross income of a family earning $10,700; and only 2% of the $100,000 income. The true cost to families of different income levels is not really equal, as discretionary income is available only after basic living expenses are covered. No wonder many lower income people are uninsured or truly cannot purchase insurance for their dependents.

The utilization of affordable insurance will provide the answer, if people will all pay their fair share. This is not only the ethical thing to do, but a practical proposal as well. According to R.R. Bovbjerg, about 90% of the work force obtain their health insurance coverage through their employer. The average cost to employers is estimated by the U.S. Chamber of Commerce in 1985 at 5.6% of the total payroll. Employee participation averages about 1.5%.

The present system, which apparently is affordable for most people, can logically be utilized to provide coverage for everyone. Government would need to utilize the same private competition-driven system to purchase the minimum coverage for those unable to pay. It is estimated by the American Hospital Association that two thirds of the uninsured are either poor or near-poor and therefore unable to pay as insurance is presently structured.

Most employers usually carry part of this cost (employee coverage), but it is the average cost to gross payroll of 5.6% that indicates the total coverage is affordable. The distribution needs to be changed (especially for family coverage), and a percentage of payroll allocation (such as is presently in effect for Social Security) is a logical, practical, afford

able, and equitable solution.

We must remember that health insurance under a universal private system should be 1) affordable, 2) available universally, 3) available under a choice by purchasers, 4) geared to provide adequate minimum coverage, 5) competitively priced under the broadest risk sharing underwriting, and 6) universally utilized and financed (realistically, it must be mandatory).

Health care, like police and fire protection, is something a person hopes never to use and in most cases would be far out of an individual's financial reach if financed individually. It is a social issue rather than an individual issue, and the general health of society reflects directly upon the general economic capacity and quality of life of society as a whole.

It has been said the best revenue source is the broadest revenue source, so that society is fairly sharing in the burden. A percentage allocation to all earned payroll and bonuses does this. It also addresses the presently unattainable goal of including part-time and temporary workers into the responsibility and benefit system.

In dealing with points five and six above and the subjects of availability and free choice, we need only look to existing examples. The smaller the insurance group, the more inefficient are the costs to market, and the greater the underwriting risk. In Kentucky when the state employees and teachers were combined into a group of 18,000 people, you find a practical administrative example:

1. Government makes it universally available.
2. Government assures payment, including payroll deduction for the employees share.
3. The plan is bid competitively by private firms which produced
   a. Good comprehensive coverage
   b. Favorable competitive pricing.
4. The individual has free choice from a number of competitive plan insurers.
5. Private competition controls the cost and prescribes quality and utilization control, under government scrutiny.
6. Private competition spreads the underwriting costs and risks over a large number of participants.
7. Employer and employee share the cost of most family plans.

Using the same scenario, a private, competitive, universal insurance plan underwriting a gigantic pool of 3,800,000 people (Kentucky's population) should enable every Kentuckian to have at least a minimum level of health insurance, with society paying or subsidizing those who cannot pay even the new lower premium costs.

Since all providers will be competing for the business and all patients will be insured, individual costs should decrease. However, competition alone will only exacerbate the current health care access problem, since a "survival of the fittest" program is not conducive to serving society's poor. Charity costs must be formally included in the overall price as it historically has been in the form of "cost shifting." Charity costs would be spread over the broadest possible base, so there would no longer be competitive advantages or disadvantages.

I believe detailed implementation studies will show clearly how Kentucky could formulate such a long term, beneficial solution -- and the continuing indigent health care crisis would then be history.▪

RESPIRATORY DISEASE IN SOUTHERN APPALACHIA: A SOCIAL DEVELOPMENT ANALYSIS

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Abstract

This paper deals with the problem of respiratory disease in Southern Appalachia from an Institutional or macro perspective. A Social Development Approach is used as a general organizing device. Berger and Neuhaus's Megastructure-Mediating Structure Dichotomy is used to classify Appalachia's institutions. The paper examines the roles that these institutional structures play in the onset and course of chronic respiratory conditions. A three-level strategy for change is also outlined.

One of the images that is frequently associated with the Appalachian region is the man or woman who is dying of occupational lung disease. Everyone has seen the fearful eyes, the oxygen tank, and the feeling that here is a healthy person, cut down in his/her prime by an avoidable tragedy. This image shocks us and awakens our sense of social justice (Caudill, 1976; Conway, 1979).

Occupational lung disease is a serious problem in the southern mountains. We should not forget, however, that victims of brown and black lung are not the only victims of chronic lung conditions (Barron and McNutt, 1983). Every day, Appalachians die from emphysema, tuberculosis, lung cancer, and a host of other pulmonary diseases.

These diseases are painful, expensive to treat, disabling, and life-threatening. In many cases, these diseases are as attributable to the social situation in Appalachia as are black and brown lung. If progress is to be made in the prevention of lung disorders in Appalachia, we must discover what factors have an impact on pulmonary disease and how to change those factors in a positive direction.

While pulmonary disease is a biological condition, many of the factors that cause it or affect its course are social in nature. In a previous paper (Barron and McNutt, 1983), we explored some of the micro-level psychosocial factors that affect the course of the disease. We also looked at some of the mental health ramifications of pulmonary conditions in Appalachia.

While micro-level forces are important, it is also essential to examine the larger forces that provide the context for micro-level situations. Researchers suspect that there is a strong relationship between factors like occupational dust level, smoking, air pollution, and related factors and the onset of lung diseases (Wynder, 1988; Berkow et al, 1987, The Kingsport Study Group, 1979; Lave and Seskin, 1977; Sexton, 1981). They suspect too that some of these factors also affect the course of the disease (Berkow, et al, 1987; Sexton, 1981). These forces must be considered at the macro-level of analysis.

At the same time, we know that factors such as access to health care, economic situation, and the availability of social support are influenced by macro-level variables (Schultz, 1988; Prigmore and Atherton, 1986; Wilson, 1970; Morris, 1985). These factors can also influence the course of the disease.

It is vital, therefore, to analyze these macro-level forces. Such an analysis will provide additional insight into the prevention and management of pulmonary disease conditions among Appalachians. This paper will explore some of the macro-level or institutional-level forces that are involved in the onset and management of chronic pulmonary diseases.

In any type of thoughtful analysis, it is useful to have an appropriate theory to guide the analysis. Social development theory, which will be used here, has four characteristics that make it ideal for the present problem.

First, it is holistic (Falk, 1984; Paiva, 1977, Hollister, 1982). Social development theory allows the analysis to escape from the single-discipline perspective that limits many considerations of social problems. This often leads to analysis that concentrates on one institution to the exclusion of other relevant institutional structures. White (1987) identifies this as a shortcoming of many considerations of the problems of Appalachia.

Second, this theory allows a simultaneous consideration of micro- and macro-level effects. This allows for some coordination between activity spheres.

Third, social development theory is prescriptive in nature. It suggests interventions that can change institutional systems in a positive way. The interventions that the theory applies are multi-level in nature, and coordination between practice activities is made possible by an overarching theoretical meaning system.

Finally, this theory provides a perspective that considers global social forces as relevant to the analysis. These international forces have been documented by many scholars (Lewis and Horton, 1981; Wilhiem, 1981; Shannon, 1985; and others) as being significant to a proper understanding of the situation in Appalachia.

Social Development Theory

Social development theory is an approach to social practice that attempts to deal with the world in a holistic and integrative manner. While the theory has its roots in social work, it represents a sharp break with the earlier, more remedial, approach that the profession took toward social problems. It also discards much of the individualistic world view that has been a feature of social work practice theory.

The focus of social development is on the institution. Hollister (1982, p. 17), for example, defines social development as "...the process of planned institutional change to bring about a better fit between human needs and social programs and policies." He goes on to suggest that the primary focus is on changing social institutions. Also supporting this theme, Paiva argues that "...the goal and substance of social development is the welfare of the people, as determined by the people themselves, and the consequent creation or alteration of institutions...so as to create a capacity for meeting human needs at all levels...and for improving the quality of human relationships and the relationship between people and societal institutions" (Paiva, 1977, p. 329).

The social development approach also attempts to examine problems in a holistic, multidisciplinary manner. Hollister (1982) argues for a holistically-oriented approach that aims at deliberate change in institutional structures. The primary focus is then away from individual change. Falk (1984) also advocates a holistic view of social problems and holds that a perspective viewing problems as "multicausal" and "complex" is characteristic of the social development approach.

Social development theory aims to incorporate global forces into social problem analysis (Omer, 1979; Falk, 1984; Meinert and Kohn, 1987; Hollister, 1982). Traditionally, social problem analysis tends to look at situations through a "one society" or "one state" perspective. The social development approach looks at the international forces that maintain undesirable situations.

The social development approach also prescribes a set of potential interventions that are useful in changing social institutions toward the intended goals. Ideally, social development looks at prevention of problems as a desirable end state (Falk, 1984). Strategies able to address the causes of social problems are especially valued. Hollister (1982) concentrates on macro-level intervention (e.g., policy analysis and formulation, community organization, administration, program evaluation and social planning). He goes on to point out that the perspective of the practitioner is the key factor in defining

a social development approach. Spergle (1977) also leans toward macro methodologies in defining the social development intervention. Meinert and Kohn (1987) and Falk (1984) discuss the multi-level nature of social development and suggest that micro-level interventions are possible within a social development perspective. Bender (1986) discusses the role of self-help groups in social development. There is thus a strong indication that there is room for micro-intervention.

In sum, the social development perspective provides us with a theoretical tool for examining problems in terms of social institutions and global forces. It looks at multiple causative factors in a holistic framework. It also stresses institutional change and provides a general set of intervention technologies that can address the situation in a way that is compatible with the value-base of the field. With social development theory, we can now analyze the nature of chronic lung disease in Appalachia.

An Analysis of Chronic Pulmonary Disease in Appalachia

A social development analysis should begin with a consideration of the major institutional systems and their relationship to the human needs of the group in question. It is useful here to employ Berger and Neuhaus' (1977) concepts of "megastructures" and "mediating structures." Megastructures are the huge institutional systems (largely the economic and political systems) that basically control modern life. Their operation takes little notice of the individual's needs. Mediating structures, on the other hand, ease the effects of the megastructures on the individual. Mediating structures include the neighborhood, the family, and the church. Berger and Neuhaus suggest that policies be enacted that will strengthen these mediating structures. A similar line of analysis, with respect to Appalachia, can be found in the discussion by Lewis, Kobak, and Johnson (1978) on the role of the family and church in preserving the native culture as the mountains became increasingly industrialized.

In order to organize our analysis, we will divide the institutions of Appalachia into those representing megastructures and those representing mediating structures. We turn first to megastructures.

A. The Economic System and Chronic Pulmonary Disease in Appalachia

While it could be argued that the political and economic systems are really a single system, they will be dealt with separately here. There is no question that the economic system has been a major force in defining the nature of Appalachia today. It gives rise to numerous causal factors contributing to pulmonary disease, such as air pollution, occupational hazards, poverty, hazardous consumer goods, and workplace accidents. Through the nature of for-profit medicine and by way of some of the causal factors outlined above, the economic system also affects the course of pulmonary disease.

Some of the causes of lung damage are found in the workplace. Occupational lung disease has long been a problem in the region (Caudill, 1976; Conway, 1979). The traditional dust-related diseases (black and brown lung) have been joined by asbestos and hazardous chemicals (Kingsport Study Group, 1978). And further, workers have had their lungs injured by "unprogrammed" workplace accidents like spills and explosions (Kingsport Study Group, 1978).

Air pollution is another source of lung damage (Sexton, 1981; Lave and Seskin, 1977). The day-to-day release of noxious fumes and dusts has been a problem in the mountains for decades. Coal dust from mining not only hurts the miners' lungs, it hurts the lungs of those who live in the neighborhood. Air pollution can also be a factor that creates renewed problems for those with existing lung conditions (Sexton, 1981).

Poverty is certainly a contributing factor to much lung disease. Poor nutrition, inadequate housing, and lack of access to medical care are a direct result of poverty. These factors can contribute

to the likelihood of contracting a pulmonary condition (Golding, 1987). They can also have a serious effect on the future life-chances of the victim once the disease has been acquired. Occupational disability (which can be a result of lung disease) can lead to poverty. This is especially true if the payments made under OASDHI are the only source of income. While progress has been made, Appalachia is still a poor land, and many of its people are still poor (Tickamyer and Tickamyer, 1987). If we want to reduce these risk factors, we must attack the basic problem of poverty in the mountains.

Smoking has been shown to be related to the onset and progression of a variety of fairly serious lung conditions (Wynder, 1988; Chandler, 1986; Ockene, 1984; Berkow, et al., 1987). Tobacco is both a major cash crop and a consumer good in the Appalachian region.

The health care system in the United States is generally run on a profit-making basis (Prigmore and Atherton, 1986; Wohl, 1984). This means that those who enjoy the benefits of the most expensive health care system in the world must pay for it in some fashion. Those who cannot pay or do not have insurance do not always receive adequate care. Poor people who need services and cannot afford insurance may not receive needed services. Furthermore, since a profit-making system is directed toward demand rather than need, many rural Appalachian communities do not have adequate medical services (Appalachian Alliance, 1979). The consequence is that access to health care may be denied even to those who have the financial means to purchase services. A number of Appalachian Counties do not have a physician (Getz, 1982).

Pulmonary disease, of course, creates work disabilities and thus limits the victims' ability to engage in the economic system (Barron and McNutt, 1983; Sexton, 1981). This loss of human capital entails a real cost to the regional economy. It also puts considerable burdens on the income maintenance system, thus affecting tax rates.

In sum, it is clear that the economic system generates, at least in part, a number of significant factors in the onset and course of various pulmonary diseases. A number of other disease factors, however, are associated with the political system, to which we turn now.

B. The Impact of the Political System on Chronic Pulmonary Disease in Appalachia

The political system in Appalachia, including both regional and national government, constitutes a sizable presence in the lives of almost all Appalachians. This presence has an impact on respiratory disease in five major areas: occupational health and safety, environmental protection, health care policies, disability and income support programs, and economic policy.

The Reagan Administration's idea of "Regulatory Reform" has had an impact on health and safety in the region and elsewhere (Lekachman, 1982). It has also had an effect on environmental protection (Shannon, 1983; Lodge, 1984; Lash, Gillman and Sheridan, 1984). Since there is little economic incentive to protect the workplace and clean up the environment, it seems likely that workers and nearby residents are more at risk today than they were in the past. And it would be hard to argue that workplace and environmental protection were ever perfect, even in years past. In this case, there appears to be a strong symbiosis between political and economic forces.

Health care policies are also affected by political forces (Morris, 1985; Prigmore and Atherton, 1986). Medicaid and Medicare, the principle public health insurance programs, have become progressively more expensive over time. There have been a number of attempts to cut costs; the new reimbursement system known as Diagnostic Related Groups [DRGs] limits the treatment time in various illnesses for which hospitals can be reimbursed under Medicare (Schultz, 1988). Health care advocates have charged that people are being released before it is warranted and are returning home without follow-up services

("quicker and sicker"). Schultz (1988, p. 198) makes the point clearly:

> Concern has been voiced that as a result of this [DRG] process, some patients are being discharged prematurely from hospitals.

He goes on to say that DRGs may even discourage hospitals from admitting certain very ill patients.

Medicare, even with the new and expanded Part "C" insurance, provides very inadequate coverage for respiratory patients. Unless the patient has other insurance as well, the patient portion of the bill can be very expensive. Since frequent hospitalizations are a fact of life for respiratory patients, this can be a real problem. In addition, coverage for oxygen and other essential supplies is often inadequate for an ambulatory patient (Appalachian Alliance, 1979).

Disability and income support programs are also underfunded. Public disability programs (under OASDHI and SSI-D) are administered at the federal level (Morris, 1985; Prigmore and Atherton, 1986). The payment levels, while not extensive by any means, are far superior to many state and local income support programs. The black lung program is available for those who qualify.

Finally, economic policies are also a source of problems. Farm support programs promote tobacco growing by providing a subsidy; it seems somewhat absurd that the government is spending a lot of public health services money to discourage smoking, while on the other hand the U.S. Department of Agriculture is providing money to tobacco farmers. Economic policies that encourage capital flight and de-industrialization create poverty in Appalachia (Shannon, 1985; Bluestone and Harrison, 1982). Since poverty is a factor in chronic respiratory disease, it is clear that these policies will make the problem worse. Lax workplace safety and environmental protection laws often prevail as part of a "Good Business Climate" (Bluestone and Harrison, 1982).

The political system, as we have seen, gives rise to a number of factors that can influence the onset and course of respiratory disease. These complement the factors that arise from the economic system. The effects of these two megastructures can be reduced by the strategic use of mediating structures.

C. Mediating Structures in Appalachia

The family and the church represent the two principle Appalachian mediating structures. To some extent, other voluntary associations, such as unions and clubs, perform a similar function.

Mediating structures provide social support, stress reduction, and instrumental help for their members, buffering the impersonal impact of the megastructures. The mediating structures, however, have limited resources available to deal with problems. In some cases, respiratory disease overloads this carrying capacity.

Caring for victims of respiratory disease can be quite expensive in terms of time and money (Sexton, 1981; Lubkin, 1986). This is especially true if there are a number of victims in the domain of a given mediating structure. A church, for example, might be able to raise enough money for one or two of its members to be treated, whereas 10 or 20 victims would overload the system. The social care resources of a church or family could be easily overloaded by a few victims.

While most of the effects of mediating structures are positive and helpful, problems occasionally arise. Traditional mountain medical care can conflict with modern medical care. In some rural communities, religion discourages people from seeking medical help (Shelly and Evans, 1981). In the case of severe respiratory illness, this stance can be especially damaging. Another problem is that some victims lack any mediating structures. Very poor people or new arrivals occasionally have no support system at all.

And of course the megastructures are sometimes hostile to mediating structures.

Lewis, Kobak, and Johnson (1978) discuss the conflict between the modernizing forces of the economy on the one hand and the family and church on the other.

Mediating structures, then, represent an important means to assist the pulmonary patient. Admittedly, they can be overloaded, dysfunctional, or lacking. In the end, however, they are a vital tool that needs to be further developed.

D. The Analysis Considered

Three things are obvious from this analysis. First, most of the factors that we are concerned with originate in the megastructures. This means that some type of high-level macro intervention is clearly needed. Second, the capacity of mediating structures for dealing with chronic respiratory disease needs to be built up. Finally, there must be some way to coordinate efforts at these two levels.

Social development also provides us with a way to design solutions for these problems. The next section will deal with such interventions.

A Strategy For Change

Using the social development model, it is possible to design an integrated, multilevel strategy that will address the problems of the victims of chronic lung disease. Because of the size of the institutional systems that are causing and maintaining the problems, it is important that a well organized effort be made to deal with the megastructures. At the same time, mediating structures must be developed to shield the individual from the Megastructures. It is also clear that at least some individual interventions will be required.

This situation suggests that, in order to address these various problems, intervention will be required at the three different levels: 1) government policy, 2) community groups, and 3) individual patients. A model is presented in Figure 1 on the next page.

A. Policy-Level Interventions

In order to deal with megastructures, policy-level interventions are needed. It should be noted that, at least in the case of the economic system, these institutions are global as well as national (Lewis and Horton, 1981). It is difficult for any community to deal with these huge structures with any success. This point was made in 1963 by Roland Warren and is still relevant today.

Community-based programs simply cannot muster the resources to change societal institutions. In fact, it is very clear that communities are at the mercy of the political and economic units that drive modern society. The application to the present case is clear. Cleaning up polluted air, insuring occupational safety, and dealing with problems like tobacco use cannot begin at the local level. Policy interventions are needed. This does not mean that community input is not important, but only that community action alone is not sufficient to solve the problem.

A regional association is needed to insure that a policy framework is developed and passed into law. Lobbying and coalition-building efforts are essential in this type of activity. The regional association should also have staff who are available to work with local communities in establishing self-help groups. Couto (1984) discusses this type of regional association and reviews some of the problems that can occur.

This framework should include extensive environmental and occupational protections and the enforcement power that is needed to back up the law. In addition, a strong citizens' oversight group is necessary. Too often progressive laws have failed to have an effect because of lax enforcement. At the same time, agricultural policies should be reformulated to move away from tobacco subsidies, and farmers should be given incentives to convert to other crops.

Some type of intervention is also needed with the health care industry and federal social programs. Disability programs need

Figure 1: An Overview of the Intervention Model

higher levels of funding. Health insurance programs must be redesigned to address more adequately the needs of the chronic pulmonary sufferer. Strong anti-discrimination legislation is also needed to protect the jobs and civil rights of those afflicted with pulmonary disease. We need laws assuring everyone access to appropriate health care.

It is also important that policies work with and strengthen the mediating structures. Berger and Neuhaus (1977) argue that many social policies work against mediating structures. The regional coalition working to develop a new policy framework must press for policies supporting the family, the church, and the neighborhood.

B. Community-Level Interventions

Victims of pulmonary disease must learn to organize in their own interests. These self-help groups can have a number of functions. First, they can provide social support and instrumental help to their members. They can thus become a mediating structure, reducing some of the strain that family and church may feel when dealing with respiratory patients. Self-help groups take an advocacy role for the needs and rights of victims at the local level. They can push for no-smoking ordinances, easy-access facilities, affirmative action programs, and related local policies. They can also mount public education and awareness campaigns to boost public understanding of the needs of victims. These groups can also help to reduce the stigma associated with chronic diseases (Steinman and Traunstein, 1976).

These groups can perform a "conscientization" or consciousness-raising function for the victims themselves. Victims can become aware of the connection between their personal pain and the larger social forces bearing on it.

Finally, these groups can link individuals to the regional coalition. They can represent local victims in regional efforts to establish a policy framework. Social action strategies for the disabled are discussed by Checkoway and Norsman (1986) and for the potentially disabled by Dotson (1979). Naturally, more general works on community organizing (Staples, 1984; Kahn, 1982) would also be useful.

In sum, the key to this level of intervention is the self-help group, which creates a new mediating structure, pro-

vides social and instrumental support, serves as a pathway to influence in the larger sectors of society, facilitates consciousness-raising, and supports local advocacy efforts. However, there will still be a need for micro-intervention to deal with problems that cannot be addressed at higher levels.

C. Micro-Level Interventions

While primary attention is devoted to the analysis at the megastructure level and the mediating structure level, some social intervention is needed with individuals also. The self-help groups would not provide this help directly. They would instead argue for changes in the procedures of existing micro-intervention agencies. While we have considered this problem in more detail in the past (Barron and McNutt, 1983), a few points should be emphasized here.

First, this care should be as non-stigmatizing as possible. Victims of pulmonary disease are people, not clients. Adding mental health "baggage" to an already bad situation is frequently unnecessary. Just because someone could potentially benefit from some type of mental health intervention is not cause for prescribing one.

It is important that interventions also be compatible with existing mediating structures. Professional practice that does not accord due weight to the family, church, and community is not going to be as helpful as practice that builds on the strengths of these structures (Barron and McNutt, 1983; Collins & Pancoast, 1976).

And finally, in planning for micro-interventions with pulmonary patients in Appalachia, a social care model makes much more sense than a traditional acute mental health care model (Harrison and Hoshino, 1984). Emphasizing the provision of caring-type services and the provision for concrete needs, such interventions can reduce the stress on mediating structures by relieving some of the burden on mediating structure members.

Summary and Conclusion

This paper has explored the role of larger institutional systems in promoting and complicating chronic respiratory disease in Appalachia, suggesting that, while these diseases are clearly biological in nature, social forces do create the conditions that are harmful to the victim and his immediate social system.

Social development theory, the organizing framework for this analysis, promotes a view of reality that is holistic, has a multi-causal view of social problems, stresses the importance of institutional-level structures, has a global perspective, and aims at developing a better fit between policies and the needs that people define for themselves. It is highly appropriate to this particular problem and represents a way of considering a wider range of forces than other theoretical viewpoints. Also useful is Berger and Neuhaus' (1977) distinction between megastructures (here considered to be the economic and political systems) and mediating structures (family, church, and neighborhood).

An intervention strategy that couples self-help groups with a regional association is recommended. Self-help groups provide community intervention. Micro-level interventions with individual patients may also be useful.

In short, we must take a creative approach to the problems of chronic pulmonary disease in Appalachia. We must match the progress that is being made at the biomedical front with equal progress at the social front. We have the knowledge and the tools to change the situation for the better. The only question is whether we have the courage to make the choice.▪

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RESEARCH AND ANALYSIS

HEALTH EXPERIENCES AND BEHAVIORS AMONG APPALACHIAN AND NON-APPALACHIAN KENTUCKIANS: RESULTS FROM THE KENTUCKY HEALTH SURVEY

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Abstract

While previous demographic studies have documented differences in the health patterns of Appalachian and non-Appalachian Kentucky, no research has examined this problem with more recently developed health survey methodology. This paper presents regional comparisons of adult health conditions and behaviors using data from the first Kentucky Health Survey. Results indicated that there were few statistically significant differences in the health indicators examined across regions. Most indicators examined, however, suggested less desirable health conditions and behaviors in Appalachia. A sign test confirmed that the direction of these differences was sufficiently one-sided to conclude that the health status of individuals residing in Appalachian Kentucky was poorer than among those in other parts of the state.

Introduction

National concern with the health conditions existing in the Appalachian region of our country has been well documented, and federal efforts to confront this problem have been in progress for a quarter of a century (Newman, 1985). During this period, several studies have examined health conditions in the Appalachian and non-Appalachian regions of Kentucky. These studies have for the most part relied upon aggregate data which enabled comparisons to be made of a number of health indicators, including life expectancy (Ford, 1964), mortality rates (Busch and Sachs, 1977; Bagby et al., 1986) and physician supply (Johnson and Cooper, 1982). Indeed, the information summarized from official records has historically been one of the fundamental sources of knowledge about the health of populations (Moriyama, 1968).

More recently, population-based health research has tended to focus more upon the health-related behaviors and morbidity experiences of individuals, data that are more readily collected using survey methodology. While a large volume of nationwide health data is now available through the efforts of the annual National Health Interview Survey (NHIS), much less information has been collected that can be generalized to smaller geographic areas. The goal of this paper is to examine health behaviors and conditions in the Appalachian region of Kentucky and compare them with the balance of the state using data from the recently completed Kentucky Health Survey. This analysis will permit some assessment of the extent to which efforts to improve the relative health conditions in Appalachia have been successful.

Methods

The Kentucky Health Survey was modelled after the National Health Interview Survey (NHIS). Most items included in the survey instrument used question wording identical to questions used in the 1988 NHIS instrument. Additional questions were included at the request of academic researchers at the University of Kentucky. Topics covered in the questionnaire dealt with acute illness episodes over the two weeks immediately preceding the interview and over the past year, chronic conditions in the areas of cancer and cardiovascular health, and selected

preventive health behaviors. The final instrument was the product of a technical committee representing most of the Colleges at the UK Medical Center as well as Appalachian Regional Healthcare and the Tobacco and Health Research Institute, the Center on Aging, and the Center for Developmental Change at UK. The questionnaire was pretested twice prior to the survey.

All interviewing was done via telephone. A number of methodological studies have reported few differences in health estimates developed from personal and telephone surveys (Aneshensel, Frerichs, Clark et al., 1982; Colombotos, 1969; Thornsberry, 1987; Weeks, Kulka, Lessler et al., 1983). Despite these findings, the relatively large number of households without telephones in the Appalachian region of Kentucky (20.4% in 1980, compared to 5.8% in the Louisville area, 7.4% in Northern Kentucky, 9.9% in Central Kentucky, and 10.4% in Western Kentucky) should be recognized when examining these data. (U.S. Census Bureau, 1982).

The sample for the survey was drawn using random digit dialing, a method that gave every residential telephone number in the state an equal probability of being called (Waksberg, 1978). Interviewers asked to speak with the person within each sampled household who "knows the most about the health of all other household members." This process resulted in information being collected about 2023 individuals within the 720 households surveyed. All interviews were completed between May 3-27, 1988. The survey's response rate (completed interviews/ eligible households) was 73.9 percent.

Households located in the 49 counties designated as Appalachian by the Appalachian Regional Commission were so classified for this analysis. While considerable disagreement exists as to how the Appalachian region should be defined, the ARC definition is useful for a variety of policy- and funding-related purposes.

The strategy used to examine regional differences in health variables began with a bivariate analysis that employed cross tabulations and average values. These comparisons were tested for significant differences using chi-square and t-tests, respectively.

Each health variable was next included in a regression equation in order to assess differences between regions after controlling for socio-demographic variables. Earlier analyses of the survey data (not shown) indicated that regional variations did exist in the distribution of several demographic variables, including race, education, and income. (No significant differences were found in the age and sex structure of the samples interviewed in each region.) These analyses permitted an evaluation of the extent to which observed differences between regions were real or the consequence of other factors. These also permitted an examination of the extent to which findings of no differences in health variables might have been the result of the confounding influence of other variables also known to co-vary with health status.

Results

Results for this study are presented below in four sections: health care access, illness behavior, health conditions, and health behaviors.

A. Health Care Access

Comparisons are made in Table 1 of the average travel time required for households in each region to obtain health care. On average, just over three minutes more of travel are required for households in Appalachia to get to their regular doctor (20.1 minutes), compared to non-Appalachian households (16.8 minutes). In order to get to the nearest hospital, the average time differential is approximately five minutes. Appalachian households require 18.0 minutes, on average, to travel to the nearest hospital, in comparison to only 12.8 minutes for households in the balance of the state. The t-test comparison of this difference was found to be significant.

TABLE 1: T-TEST COMPARISONS OF TRAVEL TIME TO HEALTH CARE BY REGION FOR KENTUCKY HOUSEHOLDS

	Non-Appalachia		Appalachia		
	N	$\bar{X}$	N	$\bar{X}$	T-Test
Minutes to regular doctor	511	16.8	180	20.1	-1.87
Minutes to nearest hospital	530	12.8	180	18.0	-3.98***

***P < .001

The greater travel time to regular doctor, compared to nearest hospital, was surprising. Common sense suggests that a physician would be closer to the homes of most individuals than would a hospital. This is obviously a correct assumption. These data suggest, however, that simply because a physician is closer in most instances, the individual's regular physician may not be. Few individuals have control over the distance they reside from a hospital. They have much more control over who their regular doctor is. If quality of care is at least as important as geographic proximity, individuals may choose not to select the nearest physician, if they perceive a better one to be only marginally more distant.

In examining the standard deviations for the averages presented in Table 1, it was found that the travel time to both regular doctor and nearest hospital were more variable among Appalachian residents than those in the rest of Kentucky. In some cases, the reported travel time to regular physician was as high as three hours. This suggests that some Kentuckians are travelling great distances to receive medical care, despite the fact that adequate medical services are unquestionably much closer.

B. Illness Behavior

Tables 2 and 3 present regional comparisons of illness behaviors for household members 18 and older. Table 2 shows that the proportion of adults having lost time from work due to illness or injury in the two weeks preceding the interview was not found to differ significantly by region (9.1% in Appalachia; 8.4% in non-Appalachian Kentucky). Table 3 demonstrates that the average number of work days missed also did not differ significantly (4.5 work days in Appalachia; 3.7 in non-Appalachia). Differences in the proportion of adults experiencing bed disability days as a consequence of illness or injury were also found not to be significant (9.5% in Appalachia; 6.5% in non-Appalachia). For respondents staying in bed, the average number of days was 5.8 in Appalachia and 3.9 in non-Appalachian Kentucky. These differences were also not significant.

Table 2 shows that a greater proportion of those living in Appalachia had received some form of professional health care in the previous two weeks (23.9% in Appalachia; 17.8% in non-Appalachia). The types of health care included here ranged from having seen or talked to a medical doctor to having received care in a clinic, hospital, or health department. No difference was found in the average number

TABLE 2: CROSS TABULATIONS OF ILLNESS BEHAVIORS BY REGION FOR KENTUCKY ADULTS AGED 18 AND OVER

	Non-Appalachia		Appalachia		
	N	%	N	%	Chi-Square
IN PAST TWO WEEKS:					
Missed time from job due to illness or injury					
Yes	53	8.4	16	9.1	
No	578	91.6	159	90.9	0.03
Stay in bed because of illness or injury					
Yes	70	6.5	35	9.5	
No	1010	93.5	332	90.5	3.36
Receive health care					
Yes	193	17.8	88	23.9	
No	891	82.2	280	76.1	6.18**
See dentist					
Yes	51	4.8	23	6.3	
No	1022	95.2	342	93.7	1.04
Stay in hospital overnight in past year					
Yes	102	9.6	40	11.1	
No	964	90.4	320	88.9	0.55

** $P < .01$

of times individuals in each region received health care (3.5 visits in Appalachia; 3.4 visits in non-Appalachia).

Differences were also not observed in the proportions having spent a night in a hospital over the past year (11.1% in Appalachia; 9.6% in non-Appalachia). The average number of nights spent in the hospital was greater in Appalachia (9.5) compared to non-Appalachia (8.3).

Visits for dental care were also compared in Tables 2 and 3. As with most other comparisons, the differences observed did not reach significance. A slightly greater number of individuals in Appalachia (6.3%) had seen a dentist in the previous two weeks, compared to adults in non-Appalachian Kentucky (4.8%). The average number of dental visits made by these individuals was 2.7 in non-Appalachia and 1.7 in Appalachia.

TABLE 3: T-TEST COMPARISONS OF ILLNESS BEHAVIORS BY REGION FOR KENTUCKY ADULTS AGED 18 AND OVER

	Non-Appalachia		Appalachia		
	N	$\bar{X}$	N	$\bar{X}$	T-Test
Number of work days missed	52	3.7	15	4.5	-0.50
Number of days stayed in bed	68	3.9	35	5.8	-1.88
Number of times received health care	93	3.4	40	3.5	-0.20
Number of times saw dentist	52	2.7	23	1.7	0.64
Number of nights stayed in hospital over past year	100	8.3	39	9.5	-0.42

C. Health Conditions

Respondents were also asked about a number of chronic health conditions and about their perceptions of the health status of household members. Regional comparisons of these health condition reports are presented in Table 4. Fifteen percent of the adults in Appalachian counties had been told that they have trouble with their heart, compared to 11.6% in non-Appalachian counties. It was also found that almost one-quarter of the adults in Appalachia (24.5%) had been told they have high blood pressure. In the balance of the state, this figure was 20.3 percent. Neither of these comparisons was found to be significant.

Appalachian Kentuckians also reported slightly higher proportions with diabetes (6.8%) than for the rest of Kentucky (5.5%). Similar results were found for cases of arthritis or rheumatism (18.8% in Appalachia, 17.5% in non-Appalachia); trouble with one or both ears (12.8% in Appalachia, 11.6% in non-Appalachia); and cancer (5.4% in Appalachia, 4.7% in non-Appalachia). None of these differences was found to be statistically significant.

Informants in each household were also asked to evaluate and rate the overall health of household members. These global health ratings are presumed to approximate a general construct that underlies both physical and mental components of health (Ware, 1976). Research has demonstrated a significant association between these health ratings and reported illnesses and disability (Ferraro, 1980), physical assessments (Linn, Hunter and Linn, 1980), hospital admissions (Weinberger, Darnell, Tierney et al., 1986), and mortality (Kaplan and Camacho, 1983). As Table 4 indicates, significant differences were observed in the subjective health ratings of individuals in the two regions examined. Adults in Appalachia tended to have less positive assessments than those in the rest of the state.

D. Health Behaviors

Regional comparisons of preventive health behaviors are shown in Table 5. Results indicate that a significantly greater proportion of the adults in Appalachian Kentucky currently smoke cigarettes (35.9%) than do the adults in non-Appalachian parts of the state (30.0%). These

TABLE 4: CROSS TABULATIONS OF HEALTH CONDITIONS BY REGION FOR KENTUCKY ADULTS AGED 18 AND OLDER

	Non-Appalachia		Appalachia		
	N	%	N	%	Chi-Square
EVER TOLD BY PHYSICIAN THAT (YOU/HH MEMBER):					
Have trouble with heart					
Yes	126	11.6	55	15.0	
No	956	88.4	311	85.0	2.56
Have high blood pressure					
Yes	219	20.3	90	24.5	
No	861	79.7	278	75.5	2.61
Have diabetes					
Yes	59	5.5	25	6.8	
No	1020	94.5	343	93.2	0.66
Have arthritis or rheumatism					
Yes	189	17.5	69	18.8	
No	892	82.5	299	81.3	0.22
Now have trouble with one or both ears					
Yes	125	11.6	47	12.8	
No	957	88.4	321	87.2	0.28
Have any type of cancer					
Yes	51	4.7	20	5.4	
No	1028	95.3	347	94.6	0.17
Global health rating					
Excellent	308	28.6	78	21.2	
Very good	323	30.0	97	26.4	
Good	282	26.2	87	23.6	
Fair	114	10.6	60	16.3	
Poor	50	4.6	46	12.5	40.51***

*** P < .001

TABLE 5: CROSS TABULATIONS OF HEALTH BEHAVIORS BY REGION FOR KENTUCKY ADULTS AGED 18 AND OLDER

	Non-Appalachia		Appalachia		
	N	%	N	%	Chi-Square
Now smoke cigarettes					
Yes	325	30.0	132	35.9	
No	759	70.0	236	64.1	4.15*
How often wear seatbelt					
Always	309	28.8	66	18.3	
Nearly always	190	17.7	56	15.5	
Sometimes	207	19.3	101	28.0	
Seldom	159	14.8	53	14.7	
Never	209	19.5	85	23.5	23.86***
Know how to examine breasts for lumps (females only)					
Yes	471	93.1	146	88.5	
No	35	6.9	19	11.5	2.96
How many times a year examine breasts (females only)					
12 or more	193	41.1	63	43.2	
7-11	33	7.0	10	6.9	
2-6	157	33.4	49	33.6	
Once a year	51	10.9	14	9.6	
Never	36	7.7	8	5.5	
Don't know	0	0.0	2	1.4	1.02
Ever had a mammogram (females only)					
Yes	191	37.5	45	27.4	
No	318	62.5	119	72.6	5.11*
How long since last pap smear (females only)					
Less than 1 year	181	36.2	63	38.7	
1 year	109	21.8	32	19.6	
2 years	57	11.4	24	14.7	
3-4 years	45	9.0	21	12.9	
5 or more years	78	15.6	18	11.0	
Never	30	6.0	5	3.1	7.21

results are similar to those reported from other sources. In 1986, 34.7% of adult Kentuckians were reported to be smokers, according to the Behavioral Risk Factor Surveillance Program, which is sponsored by the Centers for Disease Control (1987). These results also demonstrated that Kentucky had the greatest proportion of adults who smoke among the 26 states for which data were available.

Significant differences were also found in the frequency with which seat belts are worn while driving in automobiles. Adults in Appalachian Kentucky were less likely to wear seatbelts than were those in non-Appalachian parts of the state. The Centers for Disease Control (1987) defines non-use of seatbelts as the percentage reporting sometimes, seldom, or never using a seatbelt. By this criterion, 66.2% of Appalachian adults, and 53.6% of those outside Appalachia are non-users. The same study found that, of the states examined, Kentucky has the second highest proportion of adults not using seatbelts on a regular basis.

Several additional preventive health behavior questions were asked of females only. The first of these was a question concerning knowledge of how to examine breasts for lumps. Fewer women in Appalachia (88.5%) knew how to do this than in non-Appalachian counties (93.1%). This difference was not significant. Women living outside of Appalachia, however, were significantly more likely to have ever had a mammogram (37.5%) than were those in Appalachia (27.4%). When asked about the frequency of breast self-examinations, women in Appalachia reportedly examined their breasts for lumps slightly more often than did those not living in Appalachia. Women in Appalachian Kentucky were also slightly more likely than those in non-Appalachian Kentucky to have had a more recent pap smear.

E. The Overall Pattern

Overall, the health conditions and behaviors examined in tables 2-5 suggest that there are few statistically significant differences between the Appalachian and non-Appalachian regions of Kentucky. These data do, however, suggest a trend in that most of the indicators point towards more morbidity and illness behaviors, and fewer preventive health behaviors, in Appalachia than in the rest of the state. This trend was examined using the sign test. This procedure was used to test the null hypothesis that there were no overall differences between the two regions in the variables being examined. Assuming no difference overall, it would be expected that approximately one half of the indicators would favor each of the two regions. To the extent that a greater proportion favors one region or another, the more likely it is that the general health conditions of one region are better or worse than another's. Of the 23 indicators examined, 20 were found to indicate better health conditions in non-Appalachian Kentucky. Using the sign test, the two-tailed probability of observing this pattern by chance was less than P=0.0001. These results thus provide evidence that health conditions in Appalachia are generally not as positive as in the rest of Kentucky.

Regression Analysis

Multivariate analyses were next applied to each health variable included in Tables 2-5. The variables included in these analyses were education, age (both measured in years), family income (1=under $5,000; 8= $40,000 and over), sex (1=female, 0=male), and race (1=white, 0=nonwhite). Each of these variables has been demonstrated to have significant associations with health conditions and behaviors (Belloc and Breslow, 1972; Ries, 1983; Syme and Berkman, 1976; Verbrugge, 1985). Results are presented only for those health variables that: (1) were found to differ across regions in the bivariate analysis and (2) were not found to differ in the bivariate analysis, but did differ significantly across regions, once socio-demographic variables were held constant.

Standardized regression coefficients for several of the health variables examined are shown in Table 6. These variables were measured on ordinal scales. In

examining global health ratings, education and income are shown to have positive effects, while age has a negative effect, indicating that younger, more educated respondents with higher incomes are those most likely to have high health assessments. Additionally, regional differences are still found to be significant after these other variables have been controlled, suggesting that demographic differences cannot account for the lower global health ratings found in Appalachian Kentucky.

Table 6 also indicates that regional variations in seatbelt use and the frequency of breast self-examinations can be accounted for by variations in the socio-demographic characteristics of the two areas. Greater seatbelt use was found to be related to higher education, higher family income, and older age. Females were also more likely to use seatbelts more often than males. When these variables were controlled for, regional differences in seatbelt use were found to disappear.

Cross tabulations shown in Table 5 indicated that there was not a significant difference in the time since last pap test for women in Appalachia and those in non-

TABLE 6: BETA COEFFICIENTS FOR MULTIPLE REGRESSIONS ON SELECTED HEALTH CONDITIONS AND BEHAVIORS

	Dependent Variables		
	Global Health Rating	Seatbelt Use Frequency	Time Since Last Pap Exam
Region (1=Appalachian)	-0.08***	-0.04	0.08*
Education	0.26***	0.29***	0.02
Sex (1=Female)	0.02	0.09***	---
Race (1=White)	0.01	0.00	-0.08*
Age	-0.15***	0.09***	-0.23***
Income	0.20***	0.07*	0.16***
R-Square	0.23	0.11	0.09
Sample size	1287	1280	590
F-Value	65.07***	25.93***	13.24***

* P < .05
** P < .01
*** P < .001

Appalachia. Regression analysis shown in Table 6 revealed, however, that once demographic characteristics are held constant, women in Appalachia are found to have had a pap smear more recently. Younger women and blacks also reported having had a pap test more recently.

Three health variables coded as dichotomies (0=No; 1=Yes) were analyzed using multiple regression. These results are shown in Table 7. While the use of binary variables violates one of the assumptions of regression analysis--that variables are normally distributed--research has demonstrated that the robust nature of regression analysis permits its application even when some of its assumptions are relaxed. From a practical standpoint, other studies have demonstrated that few differences are found between the results obtained using this type of analysis and other multivariate methods such as logistic regression (Swafford, 1980).

As Table 7 demonstrates, regional differences in the proportion of adults having received health care in the past two weeks remained significant when other variables were controlled. Adults in Appalachia were more likely to have received health care than were those in

TABLE 7: BETA COEFFICIENTS FOR MULTIPLE REGRESSIONS ON SELECTED ILLNESS AND HEALTH BEHAVIORS

	Dependent Variables (1=Yes)		
	Received Health Care	Currently Smokes Cigarettes	Ever Had A Mammogram
Region (1=Appalachian)	0.06*	0.03	-0.05
Education	-0.04	-0.18***	-0.08
Sex (1=Female)	0.13***	-0.07**	---
Race (1=White)	-0.00	-0.03	0.03
Age	0.10***	-0.11***	0.16***
Income	-0.02	-0.02	0.25***
R-Square	0.03	0.04	0.07
Sample size	1290	1290	596
F-value	8.18***	9.94***	9.99***

* P < .05
** P < .01
*** P < .001

other parts of the state. Females and older adults were also more likely to have received health care.

Regional differences in cigarette smoking among adults were not significant when other variables were controlled. Males and adults who were older and less educated were the individuals most likely to smoke.

Among females, increased age and higher family incomes were related to having ever had a mammogram. Differences between women in Appalachia and those in non-Appalachian Kentucky were not found to be significant, once these variables were controlled for.

Discussion

Results from this study suggest that, among a variety of indicators, there are few large differences in the health patterns of Kentuckians in the Appalachian and non-Appalachian regions of the state. While most of the variables studied did not produce evidence of statistically significant differences, the overall pattern of findings does suggest that residents of Appalachian Kentucky have, on balance, less desirable levels of illness and health behaviors and of morbidity conditions than do those in the rest of the state. In addition, access to health care in Appalachia, as measured by travel time to physicians and hospitals, is less convenient and more variable than in other parts of the state.

Previous research has suggested that health conditions in Appalachia have drawn closer to those in the rest of Kentucky over the past several decades (Busch and Sachs, 1977; Johnson and Cooper, 1982). These current findings provide evidence that differences between regions remain.

Unfortunately, previous survey data do not currently exist which would permit an evaluation of the extent to which regional differences may have been reduced in recent years. Examination of these trends over time is one of the goals of the Kentucky Health Survey, which will be administered statewide on an annual basis, beginning with this 1988 survey. The data presented in this paper will in years to come serve as the baseline against which future changes in the health of Kentuckians can be assessed.

Several caveats should be considered in evaluating the data presented in this paper. First, because health is a multidimensional concept, the indicators reported here do not provide a complete representation of the possible health conditions and behaviors that could be examined. While the survey was designed to cover a variety of health topics, only a small number could be reasonably included within the survey instrument. In future years, the Kentucky Health Survey will attempt to examine other dimensions of health not included in this original effort.

In addition, as reported earlier, the rate of telephone ownership is lower in Appalachia than in other parts of the state. Because both health and telephone ownership are related to socioeconomic status, it is not unreasonable to suspect that the observed health differences between Appalachia and the rest of Kentucky might have been greater had households without telephones been included in the survey's sample frame.

Finally, these results should be viewed as only one source of information in evaluating the relative health status of Kentuckians within and outside the boundaries of Appalachia. While the Kentucky Health Survey is intended to make annual contributions to knowledge in this area, other data sources, such as demographic, economic, and vital statistical registries, should also be consulted on an ongoing basis. Only through the continual evaluation of multiple sources and types of information will the health status of Kentuckians be fully appreciated.•

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TOWARD AN UNDERSTANDING OF THE HEALTH CARE NEEDS OF THE RURAL HOMELESS IN APPALACHIA: A CASE STUDY OF THE SHELTERED HOMELESS IN EAST TENNESSEE

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Abstract

This is an exploratory study into the health care needs of the sheltered homeless in rural east Tennessee. Thirty homeless adults (53% male and 47% female) were interviewed in two multipurpose shelters designed for temporary shelter and assistance in the fall of 1988. A composite of health needs and attitudes toward health care issues were collected and analyzed. Findings revealed, via descriptive statistics and correlation analysis, that males were in better overall self-reported health and that females had higher degrees of anxiety with a greater propensity toward emotional problems. Most rely on common sense for knowledge about health and go to the emergency room for illness. County health departments were rarely used. Diet and nutrition was a major problem, with malnutrition resulting from inadequate diet composition, not amount of food available. Hospitals were generally seen as caring, but doctors were perceived with caution. Many suffer from previous alcohol and substance abuse problems. The major factor prohibiting good health care was cost.

"Homelessness [is] the problem of the eighties...a recognized national tragedy." (Treffert, 1985; Belcher, 1988).

Introduction: The problem of homelessness

Current estimates of those who live at or below the official poverty line range from 32 to 35 million Americans (Center on Budget and Policy Priorities, 1987). Included in this estimate is a growing number of homeless (Riordan, 1987). Estimates of the number of homeless vary because it is extremely difficult to acquire data on a transient population and also the definitions of "homelessness" vary considerably. The general consensus among human service professionals and shelter workers is that this group is growing, with little hope of reversing the trend in the near future (Phillips et al., 1988; Hope and Young, 1986; Riordan, 1987; Bassuk et al., 1986).

Homelessness once meant the "skid-row" alcoholic, but today it comprises a diverse set of people, many of whom were once middle or working class, who have fallen on hard times and have nowhere to turn (Hope and Young, 1986; Belcher and McCleese, 1988; Bricker et al., 1985). Other contributing factors are deinstitutionalization of patients from mental hospitals, lack of low-income housing, and the post-traumatic stress syndrome of Vietnam veterans (Hope and Young 1986).

While a growing body of literature focuses on urban homelessness, almost nothing exists on rural Appalachian homelessness (Nooe, 1988; Belcher and McCleese, 1988). This paper begins to fill this gap by examining some general health characteristics of sheltered homeless people in rural east Tennessee.

The research, conducted over a six-month period (May through October of 1988), consisted of interviews with individuals who were staying in one of two homeless shelters servicing a five-county rural area: the first in a small town (population 6000) and the second in a small city (population 27,000) some 20 miles away. A total of 30 structured interviews were completed with adults (16 years of age and older) at the two sites.

Nature of the study

The objectives of the study were fourfold: 1) to examine the socio-demographic characteristics and general reasons for becoming homeless (in contrast to the research which has taken place in large urban centers); 2) to assess as closely as possible the respondents' personal health status and attitudes toward health care providers; 3) to get some general data on eating/nutrition habits, since nutrition is so closely linked to good health and economic well-being; and 4) to identify several mental health characteristics and their correlates to gender.

Research methods

A case study approach was used in assessing the general health status of rural homeless individuals by examining two temporary shelters, both of which serve the surrounding rural counties (approximately five counties in east Tennessee). Both shelters could be described as multipurpose facilities offering such services as general life-skills counseling, assistance in job-hunting and housing, literacy training, family and health guidance, as well as information and referral concerning the availability of social services (Shelter "Newsletter," October 1988). Both shelters were established by religious organizations in east Tennessee and are staffed by a full-time director who is assisted by a corps of volunteers. Neither shelter is prepared to serve clients with severe mental or emotional problems, and they therefore rely upon the local community mental health center for such services. Each shelter can accommodate approximately fifteen to twenty residents, depending upon family make-up.

An interdisciplinary research team (sociologists, psychologist, home economist, nurse, and shelter director) began collaborating in the spring of 1988 to investigate the health needs of the rural homeless visiting these shelters. After reviewing the literature, a fourteen-page structured interview guide was developed, pre-tested, and placed in the field in the fall of 1988. Data were analyzed via descriptive statistics, and mental health attitudinal measures were checked for gender association through gamma (a nonparametric correlation measure).

The sample (N=30) was limited to individuals and/or families who were screened as "safe" to admit to one of these two shelters. A limitation of the study was the selectivity of the sample, since no one was admitted, if upon initial interview there was illegal activity suspected (sometimes screened through the local police department), severe mental disorder, or lack of space at the shelter. The sample consists of individuals and families whom the shelter directors believed they could help (given the shelter's resources) to become functionally independent, employable, and permanently housed.

The findings

A. Socio Demographic Characteristics

The socio-demographic characteristics are presented in Table 1. The "younger" look of homelessness in the 1980s (Miller and Lin, 1988) is evident in rural Tennessee as well, with 56% of our respondents being less than 31 years old. This youthful trend is exacerbated if the children of our respondents are included. There were 11 children under 16 years old with one or both parents in the shelters, increasing the share of residents under 31 to 68%. The "new" look of homelessness in the 1980s again manifests itself in that only 3% of the respondents have been homeless for an extended period of time (more than three years).

Table 2 presents reasons for homelessness. Two questions were asked to probe the events that led to homelessness. One question read: "What best describes the main reason you became homeless?" The other asked: "What best describes the way that you became homeless?" The first question was designed to elicit the respondents' assessment of the basic problem that led to homelessness, while the latter question was designed to elicit more

TABLE 1: Socio-Demographic Characteristics Sheltered Homeless in Rural East Tennessee
(N=30)

Characteristic		Case Study Data in Percent *
Age:	under 18	3%
	18-30	53%
	31-60	40%
	60+	3%
Sex:	Male	53%
	Female	47%
Race:	Black	17%
	White	77%
	Other	7%
Marital Status:	Single	37%
	Married	11%
	Divorced	44%
	Widowed	7%
Education:	8 years or less	13%
	some high school	23%
	high school graduate	43%
	post high school	20%
Length of homelessness:	less than 6 months	81%
	6 to 36 months	15%
	36+ months	3%
Shelter Location:	Small Rural Town	43%
	Small City	57%

Percentages may not sum to 100.0% because of rounding error.

immediate factors that precipitated homelessness.

Nearly half of all females reported abuse, desertion, or inability to get along with another family member as the primary reason for homelessness. Men reported not being able to earn enough money to be independent and/or the presence of a substance abuse problem. Over 40% of both men and women reported being "kicked out" by their family as the most immediate reason for being homeless. Twenty-five percent or more of both males and females reported being unable to meet financial obligations.

When asked why they were not working, 24% said they were disabled, 18% said they could not find adequate work, 18% had a substance abuse problem, and 12% reported transportation problems and old age. None of them said they did not want to work. The participants were questioned about

TABLE 2: Reasons for Homelessness in Rural East Tennessee (N=30)

Primary Reason for Homelessness	All Respondents	Percent* Male	Female
Abused by family member or deserted	26%	9%	42%
Could not get along with family member	13%	9%	17%
Unexpected expenses	4%	0%	9%
Work/but not enough income	22%	27%	17%
Job loss	0%	0%	0%
Drinking/drugs	22%	36%	9%
Nerves	0%	0%	0%
Health problems	4%	9%	0%
Jail	4%	9%	0%
Prefer homelessness	4%	0%	9%

The Way Respondent Became Homeless	All Respondents	Male	Female
Left spouse/friend	13%	9%	17%
Kicked out by family	43%	45%	42%
Could not pay bills	9%	18%	0%
Landlord or bank	17%	9%	25%
Jail	4%	9%	0%
Relocating	13%	9%	17%

Rank-Ordered Reasons for Not Working	Percent*
1. Disabled	24%
2. No one will hire or cannot find job	18%
3. Alcoholism/drugs	18%
4. Personal problems	18%
5. No transportation	6%
6. Too old	6%
7. Do not want to Work	0%
Missing data	10%

* Percentages may not sum to 100.0% because of rounding error.

their feelings of safety before coming to the shelter and how safe they have felt at the shelter. A total of 64% felt safe or very safe before coming to the shelter, whereas 97% felt safe or very safe at the shelter.

B. Personal Health Status

Participants were asked to rate their overall health. Eighty-five percent of the males chose the good/excellent category while only 29% of the females selected the good/excellent category (see Figure A on

TABLE 3: Descriptive Statistics of Rural Homeless Concerning Attitudes Toward Health Care Scale (N=30)

Statements about hospitals, doctors, and health care	Weighting Values: Strongly Agree 1	Agree 2	Disagree 3	Strongly Disagree 4	Mean	S.D.	Miss Data
Hospitals care about people like me.	13.3 (4)	70 (21)	13.3 (4)	3.3 (1)	2.06	.64	
My family and I have been deprived of adequate health care because of our income.	30.0 (9)	33.3 (10)	33.3 (10)	3.3 (1)	2.10	.88	
There are plenty of public health depts. & county nurses in America.	16.7 (5)	46.7 (14)	23.3 (7)	3.3 (1)	2.15	.77	10.0 (3)
I trust doctors.	16.7	40.0 (5)	40.0 (12)	3.3 (12)	2.30 (1)	.80	
Health care in America is adequate.	13.3 (4)	40.0 (12)	30.0 (9)	10.0 (3)	2.40	.87	6.7 (2)
The cost of health care in America is low enough for most people to afford.	6.7 (2)	20.0 (6)	26.7 (8)	46.7 (14)	3.13	.97	

*The data are presented in percentages; frequencies are indicated in parentheses.

page 86). The majority (52%) of participants rely on common-sense as the main source of their health information. When asked when they sought health care, 90% of the participants indicated they see a doctor or nurse only when there are problems, and 80% stated they see a dentist only if problems exist.

The majority of participants (53%) had not been treated by a doctor or nurse since being homeless. Those who did seek treatment went to the emergency room (56%) or doctor's office (37%), while only 7% obtained help in a public health department. The 47% who indicated they presently have a health problem listed a variety of health-related concerns. Males listed fewer problems than females (37% versus 57%). Less than half of the participants (41%) reported having any medical insurance, while a larger percentage of women (54%) than men (31%) stated that they are presently insured.

Table 3 contains descriptive statistics for attitudes toward hospitals, doctors, county health departments, and cost of

TABLE 4: Descriptive Statistics and Correlates to Gender of Rural Homeless Concerning Attitudes Toward Family (N=30)

Statements about Family	Weighting Values SA 1	A 2	D 3	SD 4	Mean	S.D.	M=0 F=1 Gamma	Miss Data
A person should rarely visit his/her family.	6.7 (2)	36.7 (11)	36.7 (11)	20.0 (6)	2.700	.877	-.3605	
The family group is becoming less important to me as time passes.	16.7 (5)	40.0 (12)	23.3 (7)	20.0 (6)	2.467	1.008	.1605	
Communicating with family members is important to me.	10.0 (3)	43.3 (13)	43.3 (13)	3.3 (1)	2.400	.724	-.1781	
Home is the most pleasant place in the world.	23.3 (7)	33.3 (10)	36.7 (11)	3.3 (3)	2.207	.861	.5244	3.3 (1)
I would rather visit with friends than my relatives.	26.7 (8)	33.3 (10)	26.7 (8)	6.2 (2)	2.143	.932	.00	6.7 (2)
Most of the time I do not want to be bothered by my relatives.	33.3 (10)	40.0 (12)	26.7 (8)	0	1.933	.785	-.5513	

*The data are presented in percentages; frequencies are indicated in parentheses.

health care. Basically, hospitals are perceived to be caring, while doctors receive a more mixed review. Most respondents felt they have been deprived of adequate health care because of low income and high health care costs.

Figure B on page 86 illustrates the frequency of habits detrimental to good health. Three-fourths of the participants smoke cigarettes. More males (81%) use cigarettes than females (64%). When asked about the use of marijuana, 52% of all participants indicated use once or twice a week before becoming homeless. Only 10% indicated use after becoming homeless, and this use was reduced to less than once a week. When asked about the use of other illegal drugs, 13% of males and 21% of females stated they had used them, and 75% stated they have a current drug problem. The use of alcohol was reported by both males and females, with use by males slightly higher (87% versus 85%).

C. Diet and Nutrition

Evaluation of the diet and health related problems of the homeless is difficult because the quality of data depended on the accuracy of diet history recall by each individual. However, from the sample it appears that malnutrition is prevalent among the homeless interviewed. Males often reported alcohol as their food source prior to coming to the shelter. The

TABLE 5: Descriptive Statistics and Correlates to Gender of Rural Homeless Concerning Personal Mental Health (N=30)

Statements about Personal Mental Health	Weighting Values: Never 1	Sometimes 2	Often 3	Mean	S.D.	M=0 F=1 Gamma
Do you feel depressed?	13.3 (4)	50.0 (15)	36.7 (11)	2.23	.679	.4676
Do you have trouble relaxing?	13.3 (4)	53.3 (16)	33.3 (10)	2.20	.664	.5382
Do you feel nervous?	13.3 (4)	56.7 (17)	30.0 (9)	2.17	.648	.4545

*The data are presented in percentages; frequencies are indicated in parentheses.

majority reported consuming primarily foods of low nutrient density, such as cola beverages, processed meats, and potato chips. Foods almost totally absent include milk, fresh fruits and vegetables, and whole grain products.

D. Mental Health

Table 4 addresses rural homeless attitudes and perceptions toward family and family life (Napier, 1973). Females tend to see family more negatively than males specifically as those attitudes are measured by the first, second, and fourth statements in the table. Females tended to agree with the statements that "persons should rarely visit their family" and "most of the time I do not want to be bothered by my relatives," while disagreeing with the statement "home is the most pleasant place in the world."

Table 5 summarizes rural homeless self evaluation on three global mental health statements. On these statements, females tended to feel more depressed, reported more difficulty relaxing, and felt more nervous than their male counterparts.

Table 6 addresses the rural homeless self-reporting of psychiatric symptoms (Grove and Geerken, 1977). Females reported greater incidence of psychiatric symptoms than males. This fact was particularly evident in that females were more likely to be anxious, trusted no one, were bothered by special thoughts or fears, allowed personal worries to get them down or make them physically sick, felt in low spirits, were bothered by nervousness such as being irritable, fidgety, or tense, felt that nothing turned out the way they wanted it to, and believed that they were unable to take care of things because they could not get going.

Conclusion

This exploratory study of rural homelessness in east Tennessee has focused on the residents of two shelters serving both single residents and families. The representativeness of the sample is somewhat limited in that these shelters were sometimes forced to deny admittance to persons who might cause problems (such as alcoholic, violent, or severely mentally dis-

TABLE 6: Descriptive Statistics and Correlates to Gender of Rural Homeless Concerning Incidence of Psychiatric Symptoms (N=30)

Psychiatric Symptoms Scale	Weighting Values: Never 1	Sometimes 2	Often 3	Mean	S.D.	M=0 F=1 Gamma	Miss Data
How often during the time you've been homeless have you felt:							
So restless that you could not sit for long in a chair.	13.3 (4)	36.7 (11)	50.0 (15)	2.367	.718	=.0150	
Somewhat apart even among friends.	10.0 (3)	43.3 (13)	46.7 (14)	2.367	.669	.0590	
As if nothing turns out the way you want it to.	10.0 (12)	43.3 (12)	43.3 (11)	2.345	.670	.2899	
That you were in low spirits.	23.3 (7)	40.0 (12)	36.7 (11)	2.133	.776	.3160	
Bothered by special thoughts or fears.	26.7 (8)	33.3 (10)	40.0 (12)	2.133	.819	.4080	
That personal worries were were getting you down == making you physically sick.	30.0 (9)	26.7 (8)	40.0 (12)	2.103	.860	.3935	
Bothered by nervousness, such as being irritable, fidgety, or tense.	26.7 (8)	40.0 (12)	33.3 (10)	2.067	.785	.2930	
That you couldn't take care of things because you couldn't get going.	23.3	50.0	26.7	2.033	.718	.2390	
Anxious about something or someone.	36.7 (11)	26.7 (8)	36.7 (11)	2.0	.871	.5556	3.3 (1)
So depressed that it interfered with your daily activities.	36.7 (11)	30.0 (9)	33.3 (10)	1.967	.850	.1920	
That nothing is worthwhile anymore.	33.3 (10)	36.7 (11)	30.0 (9)	1.967	.809	.0667	
That it is safer to trust nobody.	30.0 (9)	46.7 (14)	23.3 (7)	1.933	.740	-.4400	
That people were saying all kinds of things behind your back.	33.3	46.7	20.0	1.867	.730	.1600	

*The data are presented in percentages; frequencies are indicated in parentheses.

turbed). This selectivity bias means that one cannot conclude, for example, that rural homelessness is "more female" than urban homelessness simply because the gender composition of this sample differs from most urban samples. Our sample simply represents homeless persons occupying certain types of shelters in rural areas, and it is therefore useful in documenting the types of people who are admitted to these shelters and the nature of their most pressing health needs. In this way policies appropriate for these people may be created.

Health care needs of the homeless are complex. Emotionally, females appeared to experience higher levels of anxiety and reported lower levels of "good" physical health. Males engaged in more detrimental health habits, although the use of alcohol before being sheltered was high for males and females alike. Public health departments appeared to be an under-utilized resource, whereas emergency rooms are where the homeless typically go for treatment of acute illness. Health insurance was considered a luxury, and most cannot afford any form of insurance. Health care costs were perceived to be too high, and doctors were seen as being only somewhat trustworthy. Yet, hospitals were generally seen as "caring" for homeless people.

Further study is needed not only on homeless people and their health care needs in non-metropolitan areas, but also on the types of shelters that exist in these areas. Do rural shelters tend to be smaller and more female (and family) oriented? Are they more restrictive in who they accept? If so, then this may indicate that the overwhelming "maleness" of urban homelessness population is due largely to the lack of male-oriented shelters in rural areas. This too has policy implications for changes in rural health services which would keep rural males in rural areas, rather than transporting them from rural to urban areas.*

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Figure A: Self-Reported Personal Health Status of Rural Homeless in East Tennessee (N=30)

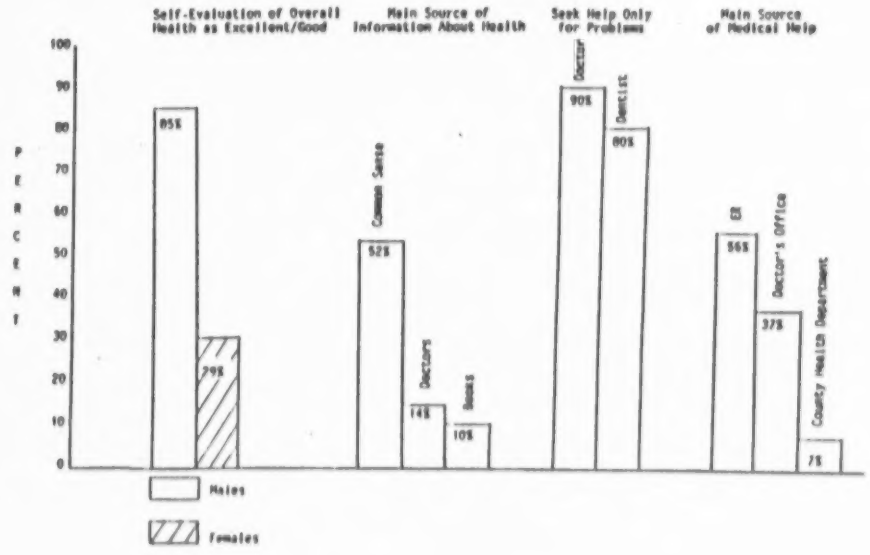
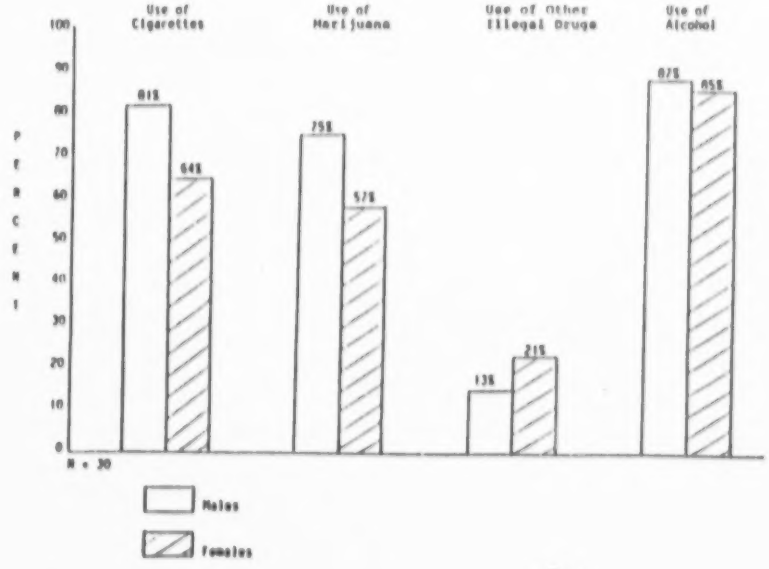


Figure B: Self-Reported Detrimental Habits to Good Health of Rural Homeless in East Tennessee (N=30)



90

ASSESSING MEDICARE'S PROSPECTIVE PAYMENT SYSTEM IN THE CONTEXT OF RURAL HEALTHCARE DELIVERY: AN APPALACHIAN CASE STUDY

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Abstract

Medicare's prospective payment system often provides inadequate reimbursement for rural hospitals, especially for those patients called "outliers" whose inpatient care needs greatly exceed nationally established averages. This paper documents spatial and medical characteristics of outliers and their communities in a 1986 case study of outliers from West Virginia University Hospital. Distances from their homes to the hospital and the lower levels of healthcare characteristic of rural communities (both primary care and long-term care) contribute to outliers' longer lengths of stay in the hospital. Community-based healthcare now shoulders an even greater burden of care for the rural elderly.

Introduction

The elderly constitute an increasingly larger proportion of our population, especially in rural regions like Appalachia. Aging individuals are most likely to require primary care, hospitalization, or continuing care in their own homes or in nursing homes. In response to the rising costs of providing medical care, the federal government implemented a prospective payment system to hold down the costs of health care in 1983. The program reimburses hospitals at a fixed rate for categories of illnesses, called Diagnosis Related Groups (DRGs). The prospective payment system reimburses hospitals outside metropolitan areas at lower rates, assuming that costs for non-metropolitan or rural hospitals are lower because they typically perform less complicated and costly procedures than larger, urban hospitals. Many rural hospitals find this troubling because their expenses for supplies and equipment are the same, if not higher.[1]

Medicare's policy on reimbursement rates for atypical patients causes even greater alarm. Hospitals are only marginally reimbursed for the extra care provided to patients whose hospital stays exceed the average length of stay or cost thresholds established by DRGs. Patients who exceed DRG length of stay or financial limits are called "outliers." Outliers represent a very real financial burden to hospitals, especially in rural areas like Appalachia where hospitals traditionally have operated on very limited budgets. This paper analyzes some important characteristics of outliers in an Appalachian case study using 1986 data from West Virginia University Hospital (WVUH).

A limited number of studies have noted the existence of outliers, mostly with regard to the impact of prospective payment on hospital finances.[2] These studies did not attempt to describe characteristics of outliers or account for their existence within the broader context of healthcare delivery. Ideally, the relationship between the patient and the healthcare provider in the healthcare delivery system is two-way. The patient seeks care from the provider, who delivers it, and is paid for the services provided. Yet the situation in reality is quite different. Healthcare delivery has economic, social, cultural, environmental, as well as bio-physical dimensions.[3]

Medical factors obviously contribute a great deal to the much longer hospital stays of outliers. A patient's medical condition, treatment, and possible complications influence that individual's ability to recover and be discharged from the

hospital within the "length of stay" guidelines established by Medicare. We believe that the other factors of the larger healthcare delivery system, especially the geographic factors of location and characteristics of the outlier's community of residence, also are associated with the lengthy stays of outliers.

The role of location, or distance traveled to receive care, may be especially important in the rural settings so typical of Appalachia. Where access to primary medical care is limited, patients may delay seeking medical attention and may be admitted to the hospital at a more advanced stage of illness. These patients may have a greater likelihood of experiencing medical complications and of extending their lengths of stay compared to the average for other patients with a similar diagnosis. The lack of more advanced medical services in rural areas may result in delays in diagnosis and treatment prior to transfer to a tertiary care center such as WVUH.

Characteristics of the patients themselves also need to be considered in the context of the services they require. Economic barriers (e.g., low income levels) and prevailing cultural attitudes (e.g., feelings of independence, ability to care for oneself) may also play a role. Nearly all Medicare patients are elderly, and many of them live alone or with equally elderly individuals. It may be more difficult for them to arrange for someone to care for them when they return home. If few continuing care services (e.g., home healthcare, nursing homes) are available in their home communities, lengthy hospital stays may result.

Methods

We explored the validity of our assumptions by analyzing the characteristics of outliers of WVUH using patient discharge records. We obtained information on all Medicare outliers for 1986 (a total of 255) from a database maintained by the hospital's Financial Services Department. Our file contained information on the patient's county of residence, a variable of particular interest to us. The data set also included each outlier's DRG, discharge status, length of stay, age, and sex. Using 1980 census data, we also analyzed the socio-economic characteristics of the areas in West Virginia in which outliers resided. Another set of supporting data for our study came from a telephone survey of home healthcare agencies and nursing homes in the state conducted during the spring of 1988.

Results

West Virginia University is located in Morgantown, in the north central region of the state. In a rural state like West Virginia, tertiary care facilities such as WVUH draw patients from great distances because the small population base of the region cannot support many high level medical services. The service area for WVUH crosses several state boundaries, frequently drawing patients from southwest Pennsylvania, western Maryland, and eastern Ohio. For this case study, we focused on the 201 outliers who resided in West Virginia. The geographical pattern of all outliers paralleled that of the service area for all patients seen at WVUH; the greatest number of outliers came from the counties closest to the medical center (see

Figure 1

NUMBER OF OUTLIER PATIENTS

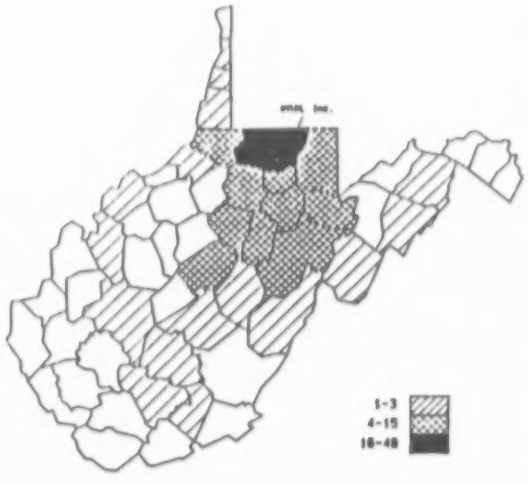
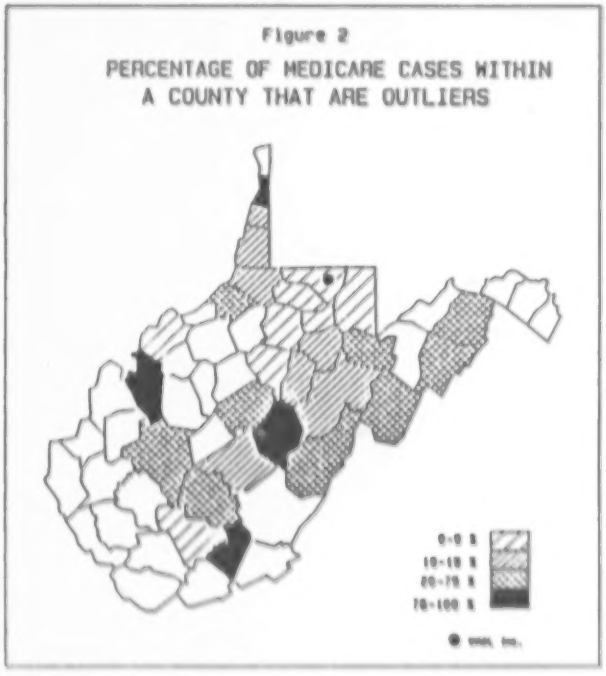


Figure 1). Of the outliers who resided in West Virginia, 46% came from Monongalia and Marion Counties. This pattern demonstrates a distance decay effect, with smaller numbers of outliers coming from areas farther from the hospital. (For a key to county names, see the map following the endnotes.)

We were more interested in determining whether a disproportionately high percentage of outliers came from more distant, rural locations. The pattern of outliers as a percentage of all Medicare patients admitted to the WVU Hospital during 1986 is not as distinctive as that of the simple frequency of all outliers, but it does suggest that distance may be a factor (see Figure 2). The counties with the highest total numbers of outliers have the lowest percentages of outliers as a proportion of all Medicare cases. On the other hand, those counties with fewer outliers generally had higher percentages of outliers as a proportion of all cases. More distant locations contribute fewer patients to the total case load seen at the WVU Hospital, but a larger proportion of them are more likely to have longer, or more costly, hospital stays. Clinics or smaller hospitals in rural settings often refer their more complicated cases to large, tertiary care centers like WVUH. Distance to the facility does alter the pattern of outliers when they are considered as a part of the total Medicare caseload of the hospital.

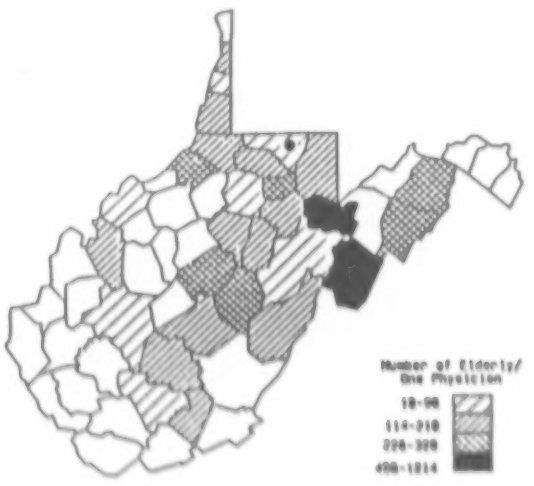
There did not appear to be any definite spatial relationship between patients' home locations and their categories of illness. The DRG that accounted for the greatest number of outliers, regardless of county of origin, was "operating room procedures unrelated to the original diagnosis." Of the outliers admitted to the hospital for one problem, 8% required surgery for an unrelated problem that resulted in a longer hospital stay. This clearly relates to our earlier suggestion that older patients often delay seeking medical attention; once they do come for treatment, they require care for more than one reason. The delay in seeking treatment may not be a function of age alone; Fox suggested that the regional culture of Appalachia (e.g., the desire to



provide for oneself or a lingering mistrust of "modern" ways) may be a contributing factor as well.[6] The characteristics of the outliers' home communities may indirectly contribute to their medical conditions as well.

The population/physician ratio is one of the most frequently used methods of estimating the elderly's access to primary medical care.[5] Several counties with a relatively high number of outliers in proportion to all Medicare cases also have a relatively high population/physician ratio (see Figure 3). Hampshire, Hardy, Pendleton, and Webster Counties can be noted. Monongalia, Ohio, Wood, Kanawha, and Raleigh Counties have low ratios. All five counties have fairly large population centers and have either a medical school or regional hospital with large numbers of physicians on staff. A majority of the counties in the study area are rural. Only four of 28 counties in West Virginia with outliers for 1986 have populations that are less than 50% rural (see Figure 4).[8] All counties noted to have a high number of outliers in proportion to all Medicare patients also have overwhelmingly rural populations. In general, rural areas are characterized by less developed transportation networks which limit their accessi-

Figure 3
POPULATION/PHYSICIAN RATIO
PERSONS 65 AND OLDER



bility, populations with lower education and income levels, and fewer medical professionals, facilities, and services.[7]

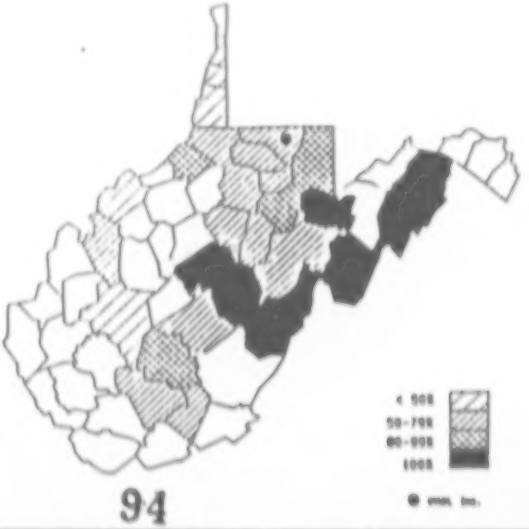
Many hospitals have begun shifting the burden of care to organizations such as home health nursing services or nursing homes in the patients' communities to avoid the revenue losses associated with caring for outliers.[8] Once a patient has been treated at WVUH, the availability of such services in their home communities may affect whether the patient is discharged on schedule according to DRG payment scales. Our analysis of the distribution of outliers in relation to community-based continuing care facilities in West Virginia counties with outliers suggested that some patients may have extended their stays because of potential underservice in certain rural areas.

About two-thirds of the outliers were discharged to their homes from the hospital. Thirty-two home healthcare agencies operate within the home counties of the outliers in our study. Each offers a range of services, including skilled nursing, aide service, and social work. A majority of agencies see patients who require services that they are unable to provide, such as physical therapy, housekeeping, or transportation. The agencies have been unable to attract and keep physical therapists; the latter two services are not considered "medical needs" by the Medicare system.

Directors of these agencies were asked their opinion of Medicare's shift from a retrospective to the newer, DRG-based prospective payment system. An overwhelming majority agreed that since the DRG-based system was implemented by hospitals, the burden of treating acutely ill patients has been passed on to home healthcare agencies. A majority of directors also believed that they often were unable to provide the number of visits and types of treatment that these sicker patients required.

Another 15% of the outliers in our study were discharged to a long-term care facility. There are 59 nursing homes that offer either intermediate, skilled, or dual-certified care in the home communities of the outliers in our study. The ratio of nursing-home beds to the elderly population in these counties appears to be adequate; but these beds are not always available. Nineteen of the 28 counties in our study were either at 95% or 100% occupancy. The lack of open beds for new patients in these areas may keep them

Figure 4
PERCENTAGE OF POPULATION CONSIDERED RURAL



in the hospital longer, contributing to their eventual discharge status as a DRG outlier.

Administrators at these facilities were asked about changes in the types of patients they cared for since the implementation of the DRG-based Medicare system. DRGs have resulted in these homes seeing patients with more complex conditions. The new payment system for hospitals has resulted in pressures on long-term care facilities to accept sicker patients.

Conclusions

DRG outliers have resulted from changes in Medicare's hospital reimbursement policies. The medical condition and treatment of these patients obviously contribute to their lengthy hospital stays, but a broader set of geographic factors also come into play. Distance to a tertiary care facility, lack of primary care, inadequate medical support services, cultural attitudes, and economic barriers all affect the provision of healthcare in rural settings. Medicare has not adequately accounted for this broad range of factors in the reimbursement rates that have been set for rural hospitals like WVUH.

If the present system of Medicare remains unchanged, more financial help must be given to local medical services. Primary care needs to be more accessible so that patients seek help at earlier stages in their illnesses. Agencies such as nursing homes and home healthcare have been affected by Medicare's move to a DRG-based payment system. These community support services need additional personnel and equipment to handle the type of acutely ill patients they now see more frequently.

Our research also suggests the need for a resurgence of volunteer organizations and community support services. Several of the lower level needs of patients being discharged earlier can be met by the community. Transportation services, meal preparation, and daily monitoring performed by volunteers can supplement the nursing support of home health agencies and will allow more people to function in the familiar setting of their own homes.

We consider this study of WVUH outliers an exploratory one; its extension to other tertiary care facilities in central Appalachia would help to determine if the patterns we observed can be generalized more broadly. Two hospitals whose service areas could be analyzed are the University of Kentucky's hospital in Lexington, which serves eastern Kentucky, and the University of Virginia's hospital in Charlottesville, which serves west central Virginia. Studies of outliers for smaller hospitals throughout the region also should be undertaken. The results of this type of research on outliers and community-based continuing care services may help to ease the financial burdens on hospitals and to improve access to medical care for all residents of rural regions.•

Endnotes

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This map provides West Virginia county names to facilitate the reading of the shaded maps in the four figures above.

THE STIGMA OF MENTAL ILLNESS: THE LABELING OF LOW-STATUS APPALACHIAN WOMEN

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It has been suggested that low-status, rural Appalachian women are highly vulnerable to depression by virtue of their gender, community of residence, and life patterns (Beaver, 1979). Community surveys have indicated that women show higher rates of depressive symptoms than men, and that low-income, rural residents have high rates of pathology (Wagenfeld, 1982; Weissman, 1980). Social class appears to mediate the incidence of depression with higher rates in the lower classes where decreases in income produce economic hardship, which in turn affects feelings of self-esteem (Ross & Huber, 1985; Steele, 1978). The professional's expectation that women may experience depression at some time during their life means that low-status rural women who feel sad, unhappy, or guilty may be diagnosed as depressed by their primary care physicians or by practitioners in community mental health centers.

The diagnosis and treatment of these rural women has consequences beyond the medical/psychiatric setting, for in rural Appalachian communities, anyone receiving service at a mental health center may be stereotyped and stigmatized as a "mental case." In addition, the author's research suggests that there is an important discrepancy between the intrapsychic models of causality related to depressive feelings which are used in mental health facilities, and the rural women's own perceptions of the sources of their unhappiness.

A research project exploring the perceptions of a group of 18 rural, low-status, Appalachian women regarding their social world, found that with one exception (a respondent who was experiencing a psychotic episode during the time of the study), none of the women labeled affective states as an intrapsychic problem, but located the sources of their unhappy feelings within the context of their interpersonal relationships. The data in this study were derived from participant observation and open-ended interviews in the respondents' homes and analyzed using the grounded theory method as a means of determining the categories of meaning the respondents shared (Fiene, 1988).

This paper will discuss the implications of diagnostic labeling, and the possible consequences of being diagnosed depressed in a rural Appalachian community. Four models for addressing causality in depression will be compared with the Appalachian women's perceptions of the sources of their "feeling bad." The paper will conclude with suggestions for developing mental health services that go beyond the intrapsychic model to deal with women in their social context.

Diagnostic labeling

Diagnostic labels have multiple meanings and implications. Edelman (1982) comments in his article on The political language of the helping professions:

> We normally fail to recognize this catalytic capacity of language because we think of linguistic terms and syntactical structures as signals rather than as symbols. If a word is a name for a specific thing or action, then terms like "mental illness," "delinquency prone," or "schizophrenic" have narrowly circumscribed meanings. But if a word is a symbol that condenses and rearranges feelings, memories, perceptions, beliefs, and expectations, then it evokes a particular structuring of beliefs and emotions, a structuring that varies with people's social situations. Language as symbol

> catalyses a subjective world in which uncertainties are clarified and appropriate courses of action become clear. Yet this impressive process of symbolic creation is not self conscious. On the contrary, our naive view holds that linguistic terms stand for particular objects or behaviors, and so we do not ordinarily recognize that elaborate cognitive structures are built upon them (p. 66).

A diagnostic label, then, may evoke different symbolic/subjective meanings for the mental health practitioner, for the patients/clients and their families, and for other people in the community.

Prior to the 20th century, feelings of intense and enduring sadness, guilt, and suicidal thoughts were referred to as "melancholia." In the early part of the century, when it was felt that the term melancholia was being used too generally, this label was changed to "depression." This new diagnostic label was meant to refer specifically to psychotic or extremely neurotic conditions (Levitt, Lubin, & Brooks, 1983). With the increased medicalization of human problems, the term "depression" has come to cover a wide array of symptoms ranging from mild to severe in intensity. Now some writers on the subject believe there is little real precision in assigning depression as a diagnosis, particularly since the term refers to feeling states that most people can identify in their own experience at some point in their lives (Hazleton, 1984).

Consequences of Being Labeled Depressed

The implication of a diagnosis of depression is that the individual with the problem is in need of help or intervention. This may bring that individual into the arena of specialists who have "special" knowledge regarding intervention. The further implication is that the cause of the problem resides, at least in part, within the individual.

Low-status women have many fears about entering a psychiatric center. They may feel ashamed or embarrassed, or fear that an admission of emotional problems will result in their children being removed from their custody. Because many of them see elements of their life situation as contributing factors in their sad feelings, they are reluctant to take an action that implies that the problem is within themselves (Belle et al., 1982).

Two serious consequences of being identified as a depressed person are the likelihood that the individual will be perceived by self or others as diseased or sick, and that a stigmatized identity will persist even when the affective state labeled depression is no longer present. As a result, the majority of women who experience repeated periods of feeling bad about themselves or their life circumstance are never seen and labeled as depressed by mental health practitioners.

There is evidence, however, that significant numbers of women (and men) are seen in general medical practices and are considered by their physicians to be clinically depressed. These people receive prescriptions, often over long periods of time, for minor tranquilizers and sleeping pills (Sidel, 1986). They may learn to ignore the complex conditions that result in appropriate and normal feelings of unhappiness and to label themselves as "depressed" and therefore "sick." Other family members also accept this illness model and come to believe that the solution when mom has an attack of "nerves" is for her to take her pills.

In rural Appalachian communities, people seeking any assistance from mental health practitioners run the risk of being labeled as "mental." Once an individual is perceived as "mental," the more uneducated rural residents will look back over the patient's life and locate some event, often in childhood, that is taken to be the cause of any life problems experienced since that time. This event may then be used to excuse behaviors that come into conflict with community norms, but also ensures that the individual will always maintain a stigmatized identity.

Causes of depression

There is little agreement about the probable causes of depression. Evidence supports views that depression is variously due to genetic, biological/chemical, intrapsychic, cognitive, interpersonal, or societal factors. Treatment protocols for depression also vary, ranging from the use of minor tranquilizers (most often administered in non-psychiatric settings) and anti-depressants, to various forms of psychotherapy (most notably cognitive behavioral therapy) and/or medications, to the use of electro-convulsive treatments.

Beliefs regarding the causes of depression are important because they are directly related to the choice of intervention. Discussions of depression in women rely on one of four frameworks to explain why large numbers of women are diagnosed at some time in their life as depressed. These are the medical model, the cognitive/interactional model, the sociological model, and the feminist model. Each model focuses on different aspects of women and their lives in locating the vulnerability factors that may result in depressed feelings.

A. Medical model

The medical model defines depression as an illness, as demonstrated in feeling states (persistent sadness), behaviors (anorexia, frequent crying), and cognitive states (preoccupation with self-guilt) that fall outside the norm. It has been difficult to establish the limits of what constitutes "normal" sadness and unhappiness, as in grief reactions, and what is pathological. The medical model proposes a diagnostic continuum indicating degrees of depression, such as mild, moderate, and severe, or major and minor. While symptoms of depression include common emotional states, a diagnosis of depression depends on the intensity or length of duration of the symptom or the total number of symptoms which appear in combination. Diagnostic criteria for a major depression, according to the Diagnostic and Statistical Manual of Mental Disorders (or DSM III), are the following:

1. dysphoric mood or loss of interest or pleasure in usual activities
2. at least four of the following symptoms, occurring daily over a two-week period
   a. appetite disturbance
   b. sleep disturbance
   c. psychomotor retardation or agitation
   d. decreased sexual drive
   e. fatigue
   f. feelings of guilt or worthlessness
   g. problems in concentration or decision-making
   h. recurrent thoughts of death or suicide or suicide attempts
3. no previous history of psychosis or bizarre behavior
4. no evidence of schizophrenic or organic disorder (Wetzel, 1984).

Psychological theories derived from psychoanalytic practice, e.g., ego psychology and object relations theory, are also based on a medical model that focuses on intrapsychic causes or the capacity of the ego to cope with tensions and conflicts arising within the psyche and with the effect of stresses from without. The environment is not ignored, but is seen as a source of pathogens that can trigger illness. These theories of causality produce treatment models that may utilize medication and/or individual or group psychotherapy.

B. Cognitive/interactional model

Theories of causality of depression in this model deal with the influence of interpersonal transactions and the resulting internal mental dialogue on feelings of well-being. The cognitive model takes the position that the individual's persistent and negative view of self, the generalization of this self-perception into her or his usual patterns of thought, and the consistently faulty processing of interactional information result in the symptoms of depression (Beck, A. T., et al., 1979). The depressed person's behaviors may at first elicit sympathy and support from significant others, but when such interpersonal caring responses do not alleviate the condition, others may become angry, hostile, or rejecting. Such negative

responses then serve to reinforce the bad feelings about self (Levitt, Lubin, & Brooks, 1983).

Certain types of mental scripts learned in childhood have been viewed as risk factors in the later development of depressed feelings. One such learned process, "learned helplessness," is frequently cited as a precursor of depression. This concept refers to repeated interactional situations where an individual believes 1) that the outcome will be negative or 2) that positive outcomes are unlikely and that he or she cannot affect the direction of the outcome. Thus the person's attributional style, how much and how frequently he or she generalizes from such experiences and the degree to which the attribution is internalized, would predict vulnerability to depression. Gender differences in attributional style suggest that women are socialized to attribute their helplessness to lack of ability, while men see this as related to lack of effort (Abramson, Seligman, & Teasdale, 1978).

This model places the locus of the depressive process within the individual's intrapsychic processes while recognizing the social origins of views of self in early childhood socialization. Cognitive behavioral therapy is widely used in mental health settings in the context of individual or group counseling.

C. Sociological model

Survey research regarding the incidence of depression and other mental illness in communities, independent of previous diagnoses by mental health personnel, is usually cited as evidence that women experience a higher incidence of depression, treated and untreated (Pearlin, 1975; Radloff, 1980). Other researchers question the statistical analyses of such surveys, pointing out that a few extreme scores have skewed the findings (Golding, 1988) or that the scales used in community surveys may confuse transient or trivial feeling states with more severe depressive symptomatology (Hammen, 1982; Newmann, 1984). Others have found that intervening variables may also qualify previous survey findings. When structural and experimental variables, such as employment, marital status, and satisfaction with family, are held constant, gender differences in the incidence of depressive symptomatology are less significant (Meddin, 1986).

Sociological research has also delineated the life events that appear to be associated with the development of depressed feelings. Both precipitating events and daily life stressors have been examined and vulnerability factors have been discriminated. Ilfeld's (1977) study of current and ongoing life stressors and the development of depressed feelings found that singleness, poor financial status, parenthood, job, and neighborhood explained 25% of the variance in depressive symptomatology. The greater the number of social stressors, the higher the incidence of psychological disorder.

Women in lower socio-economic groups are more likely to encounter chronic difficulties in their environment related to housing, employment, and the lack of money. Brown, Bhrolchain, and Harris (1975) found that working-class women, when faced with severe life events and ongoing difficulties, were more vulnerable to psychiatric disturbance than were women from a higher economic class. This increased vulnerability was related to three factors that were more common in working-class groups: the loss of mother in childhood, three or more children under 14 living in the home, and the lack of an intimate, confiding relationship with a husband or boyfriend. A fourth contributing factor, the lack of full-time or part-time employment, was more common to women regardless of class. It is this combination of vulnerability factors and the increased likelihood of environmental difficulties that renders working-class women with children four times more likely to suffer from a psychiatric disturbance than higher-class women.

In the assessment of mental health patients, the sociological model relates causal factors to the clients' social positions and environmental troubles; it

generally gears remedies to the needs of the individuals and their abilities to cope with ongoing stress.

D. Feminist model

This perspective on depression proposes that the symptoms of depression are, at least in part, an artifact of women's social role. Stereotyped feminine sex role expectations of dependency, subordination, and passivity can produce the low self-esteem and feelings of powerlessness that are associated with depression, as well as anorexia and agoraphobia (Franks, 1986). Many feminists refer to the model of learned helplessness, mentioned above, to explain the process through which socialization as a female predisposes women to define themselves as inadequate. Other feminists point to women's disadvantaged status to explain the high incidence of depression. They discuss such factors as the growing impoverishment of female-headed families; the continued arrival of unwanted and unplanned babies; the lack of affordable, quality child care; the clustering of employed women in "female jobs" with their accompanying low salaries; and high levels of sexual harassment. This structural inequality has an impact on both the number and types of stresses with which women must cope, as well as on their perception of themselves as devalued participants in the social order (Carman, Russo, & Miller, 1981). Empowerment, assertiveness training, and consciousness raising are the techniques recommended by feminists for reducing the incidence of depression in women.

Appalachian Women Discuss Feeling Bad

In contrast to this description of models of causality in depression are reflections by a group of Appalachian women about what makes them feel bad. Low-status Appalachian women are not socialized to express their feelings openly and freely, particularly angry feelings, except to the women in their family. They do not differ much in this from the majority of women in our culture who are taught subordinate behaviors as the essence of femininity. Subordinates are taught not to act aggressively toward those who have more power and prestige in the social order.

A qualitative study of the social reality of 18 rural, low-status Appalachian women found that the women feel bad when they think others misjudge or condescend to them. They feel bad when they are physically mistreated. They feel bad when they perceive that their role performance in the family is under attack. None think they can do anything to change the behaviors they resent in others.

The women in the study always locate the triggering of unhappy feelings (which they refer to as "a case of nerves," "feeling down," or "feeling hurt") in the context of their interactions with others. When the women perceive that another person holds a negative opinion regarding them, they experience either angry reactive feelings toward the other and/or negative introspective feelings about their own self-worth.

Despite the women's caution in expressing anger, some of them experience strong angry and resentful feelings toward individuals in their larger social world. Angry reactions appear to be an attempt to ward off negative feelings about self by finding fault with the other person. The tenor of these feelings includes resentment and indignation as well as anger. For example, Eunice makes it a practice to give people "a piece of her mind," because she feels she will "explode" if she does not. When she feels hospital emergency room personnel are giving her family less attention because they have a Medicaid card, she expresses her indignation "up to a point," not wanting to incur the staff's permanent dislike. Cora, on the other hand, does not reveal to hospital workers that she feels slighted by their impersonal manner, but carries her resentment home to brood over. And Kitty does not blame Social Security personnel for the long delay in processing her son's reapplication; she just wonders why she is having such bad luck.

The women have real grounds for their anger. Some health care people have slighted Eunice and ignored Cora's needs. The delay of Kitty's SSI application is the product of an unresponsive bureaucratic system. The women experience feelings of personal injustice in these transactions as the devalued status they occupy in the larger society is brought home to them.

Some women take negative transactions as indicators that they are failing to meet important role expectations. This usually involves their performance as caretakers, mothers, and wives. This pattern is observable in some battered wives who, at least initially, accept their spouses' violent behavior as a legitimate critique of their wifely activity and thus redouble their efforts to be perfect wives. Others like Kitty are concerned they have not been good daughters. Married at nineteen to escape her grandfather's restrictions on her social life, Kitty has had four children in five years. Her kin now say that her granny died because Kitty could not leave her children to come home and care for her. Kitty says, very solemnly, "And I have to accept that guilt."

The women in this group do not perceive the social origins of their concerns. They are not cognizant of the social class structure or the narrow definition of women's roles in their community. They are pragmatic. The ways that others in their world treat them can make them feel badly, even very badly about themselves, and they feel powerless before those others.

Implications for Mental Health Practitioners

While all four models of causality acknowledge the importance of women's environments, their living conditions, and the way they are treated by others, the medical and cognitive/interactional models tend to emphasize individual change. Therapists work to strengthen the women's abilities to cope with their life problems through increased self-understanding or a decreased number of negative self-messages. For many women, however, this may result in their passive adjustment to an oppressive environment.

Given the women's location of their problems within their transactional networks and the stigma inherent in their rural communities for identified psychiatric cases, attention to environmental and preventive interventions is warranted. The sociological and feminist models imply that such changes may be initiated in three different spheres. First, change could originate in the social environment through a general societal effort to reduce the number of social stresses and negative transactions experienced by low-status women. Secondly, women could take action to change some of the sources of negative input in their immediate environment. Finally, women could change their perceptions of the sources of power in their environment and feel empowered to behave in new ways, transcending their previous social conditioning.

Much of the social stress experienced by low-status women is related to the economic arrangements of our larger society. Poor housing and schools, underfunded child-care programs, unemployment, and inadequate income all create chronically stressful situations for women and their families. While it is not the primary mission of mental health providers to affect economic arrangements, they do have the ability to change the accompanying negative public attitudes and beliefs about low-status people which contribute to these hurtful and demeaning transactions. Mental health systems can direct their staff training as well as their public education and prevention efforts to changing stereotyped attitudes regarding low-status groups and sex bias against women.

Efforts to organize low-status women to produce social change have not originated within mental health systems. Such grassroots efforts can be slow and painful as women struggle with too few resources, but active women appear to find positive reinforcement within such groups, which carries them through frustrations and disappointments. An Appalachian example of this type of change is offered by the

ten-year-old Mountain Women's Cooperative in Campbell County, Tennessee. Organized and run by local women, this umbrella organization now offers literacy classes, a GED, courses for college credit, a crafts cooperative, job training, and a children's theater (Wong, 1988).

Mental health centers do have the resources to assist women in changing their perceptions of the sources of power in their environment, yet only a few reports of such efforts are published. Staff at a Michigan mental health center utilized a time-limited, 13-session, women's group to accomplish this goal. Group discussion focused on female role stereotypes, development of self-reliance, dealing with anger, self-assertion and self-nurturance, and networking among the participants in order to deal with feelings of isolation (Haussmann and Halseth, 1983). Similar groups are being used successfully in an Appalachian community in Warren County, Virginia (Olson, 1988).

Olson (1988) cautions that there are limitations to the use of women's consciousness-raising groups, because of the still-ingrained prejudice against women becoming assertive or expressing anger. This is a strong reality in the traditional gender role of the rural Appalachia world. Yet it seems reasonable that while extreme postures should be avoided, women could take positions on the continuum of passivity/assertiveness and dependency/self-reliance that promote their positive feelings and judicious actions without alienating them from their rural community.

It is in this area that mental health practitioners can implement change most immediately. To do so they will need to re-examine their assumptions regarding the causes of depression, as well as the long-range effects of various therapeutic interventions.▪

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301

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SYMPTOMS OF ANXIETY AND DEPRESSION AMONG EASTERN KENTUCKY ADOLESCENTS: INSIGHTS FROM COMPARATIVE FIELDWORK

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Abstract

Eastern Kentucky adolescents attending their junior year in high school, and from Kenya at a similar level in secondary school were asked to fill out the same questionnaire designed to collect information on values and attitudes related to family and gender roles, as well as the Health Opinion Survey, a self-report schedule consisting in symptoms of anxiety and depression. Eastern Kentucky girls received the highest scores on the HOS, selecting both anxiety and depression symptoms, while eastern Kentucky boys received the lowest scores. The responses to the second questionnaire are used to interpret these results in terms of a nexus of cultural beliefs, local social structures, and economy.

Introduction[1]

Adolescence is the time when human beings move toward consolidation of an identity, reconstituting into one's own sense of self one's parents' values and ideals, as well as the values and ideals of one's community and historical period. Erik Erikson's (1980) work continues to remind us of the importance of this period in the life cycle. While I will not deal directly with adolescent self-concept, I will attempt to move in an Eriksonian way from information about the patterning of symptoms of bodily and emotional dis-ease to an interpretation drawing not so much on the fundamentals of psychoanalytic theory as upon an understanding of historic and contemporary patterns of culture and economic structure.

For the purposes of this analysis, identifying the patterning of symptoms provides us with access to the points at which culture, social structure, and the economic arrangements of society contribute to the production of illness for individuals or classes of individuals. This paper is also explicitly comparative, for I am convinced that it is through comparison of cases that we can best begin the process of identifying those aspects of society and culture that contribute to the well-being or illness of people.

I will address these specific questions: Are there differences between eastern Kentucky and Kenyan Kikuyu adolescents' scores on the Health Opinion Survey? Are there gender differences within and between the two adolescent groups in the kinds of symptoms selected on the HOS? If differences exist, how can we explain those differences? Before we can proceed, we need to contextualize our analysis by comparing the two cultures from which the study participants were drawn.

Comparison of Local Cultures

On the surface, a comparison of Kikuyu secondary students with their counterparts from eastern Kentucky may seem, at best, unusual and, at worst, pointless. The assumption behind this reaction rests on the obvious disparities in the cultures of the two samples. The kinship systems, marriage practices, composition of households, and inheritance practices all differ in substantial ways. The Kentuckians grow up typically in nuclear family households with monogamously married parents. They often live in local rural neighborhoods near kin to whom they are related through a bilateral kinship system that recognizes blood ties equally and similarly through both the mother's and father's side of the family. Each young couple expects to have their own home separate from both sets of parents, although they may locate that house on land belonging to one or the other set of parents. Ideally, inheritance is equally shared among the children, though the one who cares for the elderly parents may get more.

The Kenyan Kikuyu, in contrast, grow up in mother/child households where the father, who can marry more than one wife at a time if he wishes, usually occupies his own house on the same homestead. If he has more than one wife, each wife has her own house and kitchen. The Kikuyu are a patrilineal society, which means they count their kin only through the father's side of the family. They recognize the mother's kin as closer than non-kin, but they are not equivalent to the father's line of descent. In their system, only males can inherit land, the key resource for survival among a farming people. When two young people marry, the new wife moves from her natal home to her husband's natal home, where her husband will provide a new dwelling separate from his mother's but sharing the same yard. Kikuyu sons never leave home.

Further differences can be seen in the division of labor at the household level. In the industrial eastern Kentucky community, women work predominantly as housewives, with lower than the national average working for wages outside the home; the rural Kikuyu women all work as the primary family farmers who are responsible for feeding themselves and their children and for making a contribution to their husband's food supply, while they also raise cash crops for sale. This pattern is typical of much of sub-Saharan Africa. Finally, the local and national political systems differ, although both systems have been heavily influenced historically by British institutions.

Similarities exist as well. Both local economies are linked into the international market economy, and both produce primary commodities -- in the one case coal, in the other case coffee, tea, and milk. Both local communities are affected by international economic forces. Both have high levels of unemployment or underemployment. Both communities rely on wage labor of at least some family members. Both local communities support elites whose positions are based on differences in education, occupation, and income, although the stratification system in eastern Kentucky is an older one. The boundaries between the strata in eastern Kentucky are sharply drawn and the lifestyles of those differently located in the structure are more divergent than in rural Kenya. The local Kenyan system was still in the process of emerging when these data were collected in 1971-72. The boundaries were fuzzier, but the direction in which the system was moving was as clear as the growing pile of dressed building stones destined to be assembled into a European-style dwelling by one community resident who worked in Nairobi, a dwelling as dramatically different from those surrounding it as the coal company superintendent's house next to the coal miner's clapboard dwelling. Finally, in both communities, Protestant Christianity predominates, although the denominations differ. The Kenyan community still held on to some pre-Christian practices and beliefs.

All the schools from which students were selected to fill out the questionnaire were located in rural areas that were tied to more populous regional towns or large urban centers, where certain kinds of shopping, medical care, and government services were available that were not available locally. Both rural locations were peripheral to the cores of their respective regions. And though both areas have some local wage jobs, both have a history of migration to other areas to find wage employment, although the pattern of migration differs between the two communities. In Kenya the usual pattern involves labor migration of males only; their wives and children stay on the rural homestead where the women farm and run the home place (Abbott 1976; Weisner and Abbott 1977). In eastern Kentucky, migration for wage employment more often involves the relocation of the nuclear family unit (Schwarzweller, Brown, and Mangalam 1971).

One last point of comparison should be drawn. One sample of students is a highly selected group who have survived an intense national examination system to earn a place in secondary school in a system where at the time these data were collected only 7-10% of rural primary school children completing the last year of primary school achieved a seat in a government secondary

school. These youth are buoyed by the expectation that they will do much better in the emerging cash economy and urban society of Kenya than their less fortunate peers. The Kentucky group is composed of students living amidst a depressed rural industrial economy, fallen victim to the usual boom/bust cycles of the coal industry and its recent technological changes, and a shifting international division of labor that have together permanently changed the employment picture of the region. All these youth are affected by the international economy, but they live in contrasting local structures and occupy different places in those structures.

Methodology

The two samples were selected in a similar manner. In the Kenyan study (Abbott and Arcury 1977), six secondary schools in the vicinity of my on-going 1971-72 community study participated. I supervised the administration of the questionnaire in each classroom. In all, 176 students completed the questionnaire, as can be seen in Table 2. The mean age of the sample was 17.7 years, with a range of 14 to 25 years.

The eastern Kentucky sample (N=152) was drawn from the three high schools under the jurisdiction of the local county school board. The questionnaire was passed out to all high school juniors in class on the day it was to be administered. Three seniors also filled out the questionnaire in one of the high schools. In one school, I administered the questionnaire myself. In the other two high schools, teachers administered it after receiving instructions from their respective school principals (2). (I myself had explained to each principal the purpose of the questionnaire and how it was to be administered.) The mean age of the Kentucky sample is 16.6 years and ranges between 16 and 19 years.

The first part of the questionnaire was derived from Robert Edgerton's "Culture and Ecology Interview Schedule" (1971), which was designed for use in a comparative study of personality, values, and behavioral styles of adults from four different East African cultures. It was used in both settings with only minor modifications for this research. The questionnaire could be administered in English in both settings, since instruction in Kenyan schools is carried out in English. Codes were developed for the students' responses to the 82 questions, and the responses were coded following appropriate procedures. A variety of descriptive statistics were used to analyze the responses.

The Health Opinion Survey composed the second part of the questionnaire. It is a standard twenty-question self-report of symptoms suitable for comparing groups (Macmillan 1957). It has been used in cross-cultural studies to meet the need for a brief, inoffensive test that could be utilized on a community-wide basis (Abbott and Klein 1979; Mitchell and Abbott 1987). The HOS is not used to diagnose disorder. As Abbott and Klein (1979) and more recently Murphy (1986) point out, it is composed of items frequently found to be symptomatic of either depression, anxiety, or common to both syndromes. It has a possible score range of 20 to 60. Table 1 lists the HOS questions arranged by symptom type. This particular classification of the HOS items is fully described in a previous study, Abbott and Klein (1979). The present study offers two kinds of analysis of the HOS responses, examining gender differences first in global scores and secondly in the selection of individual items.

Comparison of the Two Samples

Space limitations preclude a full discussion of similarities and differences between the two samples; Table 2, however, provides pertinent information. Three aspects of it need to be highlighted.

First, the Kentucky sample is predominantly working-class, although it includes some children of middle-class businessmen, managers, and professionals. The mean years of education of the students' fathers

TABLE 1: THE HEALTH OPINION SURVEY ITEMS SORTED BY SYMPTOM TYPE WITH SCORING INDICATED

HOS ITEMS

Anxiety Symptoms

2.[a] Do your hands ever tremble enough to bother you? Often (3) Sometimes (2) Never (1)
3. Are you ever troubled by your hands or feet sweating so that they feel damp and clammy?
4. Have you ever been bothered by your heart beating hard?
8. Have you ever been bothered by nightmares (dreams that frighten and upset you)?
9. Have you ever been troubled by "cold sweats"?
17. Have you ever been bothered by shortness of breath when you were not exerting yourself?

Depression Symptoms

1. Do you have any physical or health problems at the present time? Yes (3) No (1)
7. How often are you bothered by having an upset stomach?
10. Do you feel that you are bothered by all sorts (different kinds) of ailments in different parts of your body?
13. Has ill health affected the amount of work (housework, school work) you do?
18.[b] For the most part do you feel healthy enough to carry out the things you would like to do? Often (1) Sometimes (2) Never (3)
19.[b] Do you feel in good spirits? Often (1) Sometimes (2) Never (3)
20. Do you sometimes wonder if anything is worthwhile anymore?

Symptoms Possible in Either Condition

5. Do you tend to feel tired in the mornings?
6. Do you have trouble getting to sleep and staying asleep?
12. Do you ever have loss of appetite?
14. Do you feel weak all over?
15. Do you ever have spells of dizziness?
16. Do you tend to lose weight when you worry?

Indeterminate Items

11. Do you smoke (use snuff, chew tobacco)?

Notes: Scoring is indicated for each item.
a. Scoring for items 2 through 17 and 20 is the same.
b. Scoring for these items is reversed.

is 11.6 years, with a range of 0 to 21 years, while their mothers have slightly more education. The adult men and women in the Kikuyu community study had far less education. The men's mean is 2.3 years, but their range is similar to the Kentuckians -- 0-22 years, while the women had a mean of one year of education and a more restricted range of 0 to 6 years. Approximately 50% of adult men and women had no formal schooling.

Second, the Kentucky students' educational and occupational aspirations are like those of American youth as a whole in that they all aspire to at least a high school education, but they differ in that fewer aspire to a four-year college education. Nationally, about 66% of working-class youth aspire to four years of college, while only 40% of these students say they want a college education (Crowley and Shapiro 1982a, 395). And, although the occupational aspirations of the Kentucky students accurately reflect the occupational structure of the United States as a whole, they are lower than the stated aspirations of American working-class youth of the same age who aspire in much higher proportions to high-status technical and professional occupations. Based on national survey data, 50% of American adolescents say they want such occupations, compared to 37.9% of this sample.

Third, a very low percentage of the girls said they wanted to be housewives as their primary occupation. When working-class girls are sampled nationally and asked about their occupational aspirations, 24% say they intend to be housewives (Shapiro & Crowley 1982b, 35-37); only 2.7% of these girls gave that response.

Results

The analysis of the two groups' responses to the HOS yielded interesting contrasts and some similarities. Although the total scores on the HOS for both groups are similar (see Table 2), gender differences exist. The eastern Kentucky females have the highest mean scores (34.5), while the boys have the lowest (31.5). The Kikuyu means, which are close together, fit between these extremes. Next, the total scores on the HOS were grouped into low, middle, and high categories based on the score distributions for each sample. Contingency tables for HOS score by sex of respondent were created for both samples, and Chi squares were computed for each. The Kentucky sample produced a Chi square of 10.5505 with 2 df, which was significant at the .005 level, while the Kenyans did not produce a significant result (Chi square = 1.7374, sig.=.4195).

Following the analytic strategy used by Abbott and Klein (1979), Table 3 presents the results of the final individual item analysis of the HOS. Here we can see the content of the students' responses. The Chi square tests were computed by comparing males and females within each cultural group. The eastern Kentucky girls not only are the most symptomatic overall, they select as many anxiety symptoms as they select depression symptoms. The Kikuyu girls, who are also more symptomatic than their male counterparts, do not select anxiety items to the same extent; their symptoms are predominantly depression symptoms with a few symptoms common to both forms of distress. Males in both populations are relatively free of the symptoms included on this instrument, with the Kentucky boys being the least symptomatic of all.[3]

Thus, the answer to the first two questions posed at the beginning of this paper is yes. There are differences between eastern Kentucky and Kikuyu adolescents' responses to the HOS, and gender is an important factor in those differences.

Discussion

The students' responses to other questions on the questionnaire are helpful in our efforts to interpret these results. This analysis will limit itself to a subset of the questions pertaining to gender ideals. Space limitations prevent including the tables that are the basis for the following discussion.

TABLE 2: DEMOGRAPHICS -- EASTERN KENTUCKY AND KENYAN HIGH SCHOOL STUDENTS COMPARED

	E. KENTUCKY	KENYA
1. SEX		
Male	58	85
Female	94	91
2. AGE IN YEARS		
Mean	16.6	17.7
Range	16-19	14-25
S.D.	1.17	1.58
3. NUMBER OF SIBLINGS		
Mean	2.46	6.2
Mode	2.0	6.0
Range	0-17	0-14
S.D.	2.06	2.26
4. GRADE IN SCHOOL	Juniors (11 yrs) Seniors	Form 3 (10 yrs)* Form 4 (11 yrs)
5. STATE OF BIRTH		
Kentucky-Appalachian	73.2%	Central Province
Other Kentucky	5.3%	
Non-Kentucky	24.3%	
6. YEARS RESIDENT IN COUNTY		
Mean	13.8	No information
Mode	16.0	
Range	1-19	
S.D.	5.3	
7. FATHER'S EDUCATION IN YEARS		
Mean	11.6	2.3**
Mode	12.0	0.0
Range	0-21	0-22
S.D.	4.08	(50% have no education)
8. MOTHER'S EDUCATION IN YEARS		
Mean	11.9	1.0***
Mode	12.0	0.0
Range	3-23	0-6
S.D.	3.58	(50% have no education)

*Kenya follows the British model of school structure.
** and *** See notes, next page.

TABLE 2: DEMOGRAPHICS (continued)

	E. KENTUCKY	KENYA
9. STATUS OF PARENTS' MARRIAGE		
Intact	80.8%	No information
Divorced/Separated	14.7%	
One or Both Deceased	4.5%	
10. STUDENTS' EDUCATIONAL ASPIRATIONS		
High School Only	34.9%	No information
More than H.S.	13.8%	
Four Year College	40.1%	
Don't Know	11.2%	
No Information	2.8%	
11. JOB ASPIRATIONS		
Housewife	2.7%	No information
Blue Collar/Pink Collar	32.4%	
Technical	8.8%	
Low Level Professional/Business	20.3%	
Professional	8.8%	
Don't Know	27.0%	
12. HEALTH OPINION SURVEY SCORES		
a) Group Scores		
Mean	33.0	32.4
Range (20-60 possible)	22-52	21-55
S.D.	5.97	5.01
b) Females		
Mean	34.5	32.2
Mode	34	33
Range	22-52	21-55
S.D.	6.45	5.605
c) Males		
Mean	31.5	32.5
Mode	26	31
Range	22-48	22-45
S.D.	5.50	4.351

**This figure represents the educational attainment of all married men in a rural community near the schools from which the students were drawn for the study. The men ranged in age from 30 to 70, and they are not necessarily the fathers of the students sampled for the study. Most Kenyan secondary schools are boarding schools, and entrance is gained through performance on a national competitive examination. Students may or may not be assigned to a school near their home community.

***This figure represents the educational attainment of all married women between the

The first question the students were asked was "Would people in your community prefer to have sons or daughters?" To a striking degree, both eastern Kentucky girls and boys believe that sons are preferred in their community. Sixty-two percent gave that response. Slightly more than 27% said that people had no preference, that they wanted both, and finally only 6.3% believed that daughters were preferred. The Kikuyu reversed the positions of "sons" and "both"; 52.7% believed that both were preferred, while 38.9% felt sons were preferred. Similar to the Kentuckians, only 8.4% saw daughters as preferred.

It is interesting indeed that youth who have grown up in a patrilineal kinship system with its explicit male bias are more likely to say that people value both daughters and sons than youth who have grown up in a bilateral kinship system that treats females and males similarly when counting kin and officially counts the sexes equal when deciding on inheritance. How are we to understand this?

The students were next asked to justify the gender preference they identified. The Kentuckians said that sons were preferred because, first and foremost, "they can work." Next, they are "less worry." Third, "they continue the family line." Fourth, "they are a companion for the father." Fifth "they can be athletes." And finally, they just "like boys." When the Kikuyu said sons were preferred, they mentioned such things as "they care for the parents, while the daughters leave," they continue the family line and can inherit, they are more "profitable," and finally, they can become local leaders.

On the other hand, when the Kikuyu were giving reasons why both are desirable, they would say as their dominant response, "they are both profitable," "they are both useful," and "they are both equal." Those Kentuckians who gave the "both" response usually followed it with something like "they don't care what they have as long as they're happy and healthy. People love them both equally." When it came to daughters, the Kikuyu pointed out that daughters bring in bridewealth to the family when they marry, that they help with the house and farm work, that they are useful for reproduction, and that they give their earnings to their parents. The few Kentuckians who felt daughters were preferred said that they could be a companion for the mother, they liked girls, and one believed they were less difficult to deal with than boys.

Other questions also help us understand these students' perceptions of gender roles. "What kind of man (woman) do people around here respect?" and "What kind of man (woman) does a woman (man) want to marry?" produced some important insights. Responses were combined for analysis into two major categories. One included all responses that reflected an emphasis on individual achievement of status and/or wealth, including traits likely to contribute to achievement, like high levels of education, leadership qualities, and intelligence. The other category included all responses that reflected deference to authority, emphasis on fulfilling traditional role expectations, such as being a good mother or father, exhibiting moral rectitude, and other qualities, like being a loving and caring person.

Comparing the responses to the two questions phrased for men produced a dramatic contrast. When describing the kind of man people respect, the eastern Kentuckians, both males (69.4%) and females (80.9%), place greater emphasis on moral aspects of a person's behavior, attitudes toward authority, and qualities of the person like having a good temperament, being loving and caring, wise and sociable. For the Kikuyu, individual achievement and attaining wealth are given higher priority (males 58.2%, females 53.4%). This difference is particularly striking in their responses to the question about the kind of man a woman wants to marry -- over 90% of Kenyans gave responses in this category and both the boys and girls agreed. The Kenyans are more willing to recognize other values when thinking about the kind man people respect, but the majority still opt for achievement and wealth.

TABLE 3: HEALTH OPINION SURVEY ITEMS BY SEX: EASTERN KENTUCKY AND KENYAN HIGH SCHOOL STUDENTS COMPARED USING CHI SQUARE

	FEMALES		MALES	
HOS ITEMS	E.Kentucky	Kenya	E.Kentucky	Kenya
Anxiety Items				
2. Hands shake				
3. Hands/feet sweat	6.837 p <.03			
4. Heart pounds	6.924 p <.03			
8. Nightmares	21.14 p <.0000			
9. Cold sweats				13.655 p <.0011
17. Short of breath				
Depression Items				
1. Physical problem	5.152 p <.023			
7. Upset stomach	17.3484 p <.0002	19.234 p <.0001		
10. All sorts of ailments				
13. Work affected		8.683 p <.013		
18. Health to work				
19. Good spirits				
20. Anything worthwhile?	8.7597 p <.0125	20.391 p <.0001		
Both				
5. Morning tiredness				14.601 p <.0007
6. Disturbed sleep	.9.7684 p <.0076	6.973 p <.0306		
12. Loss of appetite	13.3096 p <.0013	5.891 p <.05		
14. Feel weak	7.3305 p <.0256			
15. Dizziness				
16. Lose weight/worry	31.0657 p <.00001			
Indeterminate				
11. Smoke or chew tobacco			32.0619 p <.00001	

Turning our attention now to the students' perceptions of qualities desired in women, the eastern Kentuckians repeat their pattern of response for the qualities desired in men (males 70.3%, females 87.8%). The Kikuyu responses have shifted now and a mixed picture emerges. The Kikuyu students' beliefs about the kind of woman that is respected are similar to the Kentuckians' views in this matter -- people respect women who demonstrate qualities of moral rectitude, are good mothers, are sociable, and have good temperaments (males 78.1%, females 72.6%), much more than they respect women who are rich, who have achieved high levels of education or other kinds of high status (males 21.9%, females 27.4%).

There is another interesting aspect to the responses. The Kikuyu girls and the eastern Kentucky boys are more than twice as likely (27.4% and 29.7% versus 12.2%) to believe that women of achievement and wealth are respected than eastern Kentucky girls (12.2%). The pattern becomes even more pronounced when the students are asked to typify the kind of woman a man wants to marry. The Kentucky boys are 4½ times as likely to say a man wants an achieving, high status wife as the Kentucky girls are (34.3% vs 7.3%), the Kikuyu girls say so about four times more often 29.8%), and the Kikuyu boys who are the most interested in an achieving, high status wife, say so about 7½ times more frequently (55%). Within both groups, however, the girls are similar in that they are both less likely to believe that a man would want an achieving wife than are their male peers. It appears that in both cases there is higher cross-sex agreement regarding gender ideals for males than there is for females; this discrepancy is a probable source of conflict for girls in both cultures, and the eastern Kentucky girls are more discrepant in their beliefs from their male peers than the Kikuyu girls are from Kikuyu boys.

One final point needs to be made. The gross lumping of responses into two categories obscured an important difference in the kinds of answers supplied by the two groups of students. While the Kentuckians' most common responses could be classified as representing some aspect of moral rectitude, they also put heavy emphasis on love, loving, knowing your prospective spouse loved you and that you loved him or her. The Kikuyu put an emphasis on knowing one's duties and role expectations as a married person and on having an ability to work hard. The ability to work hard was particularly important for women. Further, being physically attractive was most commonly given as a response to the kind of woman a man wanted to marry by the Kentucky girls. It was only mentioned by one of the Kentucky boys, but several girls mentioned it as a primary attribute.

The perceived preference patterns for offspring in combination with gender ideals, as indicated in the students' responses to these questions, reflect cultural, social, and economic differences between the two communities. Even though Kikuyu culture explicitly privileges males in many ways, it is a culture in which women have real power based on their economic roles as family farmers, their role in reproduction, which is highly and explicitly valued, and the emotional hold they have over the sons, who never leave home.

They are an example of a social and cultural arrangement that Peggy Sanday (1981) calls "mythical male dominance." These Kikuyu students have mothers at home who are proud of their physical strength and ability to do hard physical labor in their gardens, who produce much of the food the family eats through their own labor with help from their children, who haul firewood and water on their backs for the family, who tend coffee trees and milk cows. They have mothers who often see their own interests as different from their husband's interests, in marriages sometimes comfortable and sometimes not, where husbands and wives do not sleep together and often do not eat together. Many have fathers who live where they have a wage-paying job, so far away that they grow up seeing him only every few months for a brief visit; their mothers likely find this congenial, since it gives them maximum independence in running the farm and rearing children.

And though most of their families see themselves as Christian, they all know the earlier Kikuyu origin myth which explains why Kikuyu clans, though dominated by males, nonetheless have female names. The myth tells of a time when women ruled and men were weak. The men rebelled successfully and were about to institute male clan names. The women kept them from achieving this total symbolic supremacy by threatening to kill all their children and refusing to have any more. An uneasy truce was achieved, for the women held the trump card: to perpetuate themselves, men's patrilineages require cooperation from non-lineage women, and the women know it.

Eastern Kentucky adolescents, on the other hand, are growing up in a different kind of culture. The dominant conservative Christianity of the area constantly emphasizes the role of the man as the proper head of the family, as prescribed in the Book of Genesis by God, who said to woman, "I will greatly multiply your pain in childbearing; in pain shall you bring forth children, yet your desire shall be for your husband, and he shall rule over you" (Genesis 3:16). Gone is farming of any kind, a mode of subsistence that gave earlier generations of women in this area of Kentucky a sense of self-esteem and accomplishment: they could proudly count their jars of canned produce from their kitchen gardens and cover their children at night with skillfully stitched quilts. Many people do not put in kitchen gardens each year; many folks, especially those living in the remnants of the old coal camps, do not have the ground to garden even if they wanted to.

The distinctly masculine ethos of the coal industry is pervasive. The local economy, dominated by coal and lean on jobs of any kind, has retarded movement of women into wage-earning jobs. At this time, approximately 60% of American women with children under 14 work outside the home for wages. Only 40% of the mothers of these students have any kind of wage-paying job, and most of those with jobs are in low-paying traditional women's jobs, working as secretaries, restaurant help, and low-level health workers. It is clear, based on their responses to other items in the questionnaire, that these students continue to believe that a married woman's role is limited to housekeeping and child-rearing and supporting her husband, while they see supporting the family as the primary attribute of the role of husband/father, -- and it is the male economic role that ranks highest among the reasons given for the preference for sons over daughters. Again, though, it must be noted that very few of the Kentucky girls say they aspire to futures in which they are exclusively housewives.

Conclusions

Prior to the impact of the western world on Kikuyu culture, before the modern nation of Kenya was formed by the British, women and men were reared into a set of predominantly ascribed roles, although there was apparently room for men to achieve some distinction based on their own initiative as warriors and later as elders. Some pursued wealth as traders with great success, enabling them to marry more wives than other men, father more children than other men, and through strategic marriages of these offspring, achieve more influence and standing than other men. That world is gone now, and the old virtues no longer hold. The contemporary Kenyan world places a premium on achieved status based on individual competitiveness.

Sharon Mitchell and I pointed out in an earlier analysis of the Kikuyu data (Mitchell and Abbott 1987) that the Kikuyu boys seem to be adapting more readily to these new demands than the girls. We also pointed out that there was evidence suggesting that the girls were under greater pressure, particularly in rural areas, to continue conforming to the traditional role expectations of Kikuyu women, even if they completed secondary school. The Kenyan data suggests that, in comparison to the boys, the girls are suffering more conflict between the expectations and attitudes of their community (expecting conformity to the traditional,

female role) and the individualizing, competitive values and attitudes of the new order represented by school achievement and attainment of a job after school.

H.B.M. Murphy (1982) has suggested that the shift from a social system based primarily on ascribed status to one based on achieved status rooted in individual competitiveness leads to increased depression in the transitional groups. This is apparently what is happening among the transitional Kikuyu, and it has a greater impact on girls than boys, for reasons described above. There is greater effort by local rural communities to try to keep girls conformed to traditional roles.

Something similar may be going on with girls in eastern Kentucky, although they present a somewhat different symptom pattern, exhibiting anxiety as much as depression; as a group, they are more symptomatic overall than the Kikuyu girls. The region is under increasing economic pressure to change a way of life that has been patterned on the labor demands of the coal industry. Thirty percent of these adolescents have fathers employed in some aspect of coal mining, and the industry affects every other business in the county.

This order seems to have been in place now for about 70 years (Arcury 1988), so it is about three generations deep. As the grandparents of these adolescents took up mining, they established a division of labor that required a full-time housekeeper to run the home, rear the children, and maintain the coal miner, who was in the mines 12 hours a day, six and sometimes seven days a week. There were few or no jobs for women outside the home, and there certainly was no role for a woman in the mines. At the same time, women lost their role as farm wife when they moved into the coal camps. The result was a more constricted role for many women. Now their role is changing again. The coal industry is changing its labor demands; it needs fewer and fewer men to maintain the same levels of productivity. The whole region is struggling to diversify and find alternatives. The county that is home to these students has yet to attract significant alternatives except in the service sector. There are more jobs for women than there used to be, although they are predominantly minimum wage jobs.

Within this context, I suggest that the Kentucky girls' distress is a response to 1) their perception that girls are not as valued as boys; 2) their desire to move out of the traditional role for women in a context; and 3) their lack of local examples to follow and of a supportive local social structure, economy, and culture.

These findings would suggest that school authorities and other people involved with adolescents in the region (such as 4-H leaders and youth ministers) need to pay increased attention to teenage girls who are coping with marked distress. Parent/teacher organizations can be encouraged to design programs to heighten parental awareness of the issues facing their maturing daughters and to suggest ways that parents can help their daughters reduce the stress they are feeling. Schools can be encouraged to set up discussion groups among the girls to increase their awareness of the issues troubling them, while at the same time helping them to understand that their problems are common to other girls in their community and not a result of personal failure. Such efforts should be developed by concerned people living in the region who are knowledgeable about community values and social structure.▪

Notes

1. Funding for the Kikuyu field research was provided by the Carnegie Corporation through the Child Development Research Unit, Harvard University and the University of Nairobi, John W. M. and Beatrice B. Whiting, Directors. These data were collected between August 1971 and December 1972. The eastern Kentucky field research was funded through an Appalachian Studies Fellowship, with Mellon Foundation funding, awarded through Berea College, and through two grants from the University of Kentucky Research Committee. The data were collected between February and August 1987. Data analysis was funded by the University of Kentucky. I want to thank the students and school authorities in both research locations for their cooperation and help in making this paper possible, though I cannot mention them by name because of the need to protect their privacy. I also want to thank Becky Eller for assistance with codebook construction and data coding, and Helen Crawford for her help in manuscript preparation.

2. Sixty-six percent of the questionnaires from one of the three high schools were unusable. It was clear from the students' responses that they refused to cooperate in filling out the questionnaire, and more boys did so than girls. I can only speculate on the reasons for that. It seems to have been given on the last day or two of classes before dismissal for summer vacation and it is probable that the teachers did not frame the task in a convincing way to students whose only interest was leaving as soon as possible. There were no difficulties of this kind in the other two schools. In one where I directly supervised, 100% of the questionnaires were useable, and in the other they were 95% useable. Because of the problem with the students' attitude toward the task in the first school, the analysis of the values questions for this paper is limited to the sub-set of questionnaires from the two schools where no difficulties were encountered, although the demographic data and the HOS analyses are based on the total set of useable questionnaires.

3. A detailed analysis of the Kikuyu students' HOS responses is available in Mitchell and Abbott (1987).

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URBAN APPALACHIAN HEALTH CONCERNS

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Abstract

Often the health needs of Appalachian migrants to urban areas are not met because non-Appalachian health professionals lack knowledge of Appalachians' cultural background and health concerns. Knowledge in these areas can improve care of Appalachian patients. A telephone survey of 512 Cincinnati residents compares Appalachians with blacks and whites. Unlike the other two groups, Appalachians consider heart disease and accidental injury the two leading health concerns. More than two-thirds of Appalachian respondents are smokers, as compared with one-third of blacks and other whites. Appalachians are least likely to believe that one can avoid illness by taking good care of oneself and more likely to believe that health is a matter of luck. These concerns reflect Appalachian culture and lifestyle.

Clarity of communication between patients and health care providers is tempered by a number of variables, not the least of which are the ethnic background and the cultural expectations of those being served. Whereas many health care professionals have been made aware of the special health concerns of Asians, Hispanics, and blacks, other culture groups are not identified as easily, nor is consciousness of their culture as widespread. This is particularly true of Appalachian migrants.

The medical anthropologist John Friedl points out:

> "...limited education created a serious barrier in communication between an [urban] Appalachian patient and a health care professional. Poor communication can quite obviously detract from the quality of care received, and in many cases can lead to alienation that ultimately drives the patient away from the health care system" (1983:190-191).

Friedl notes, however, that the problem of education is shared:

> "...the professional jargon and middle-class educated speech patterns used by health care providers create a cultural gap between them and many of their clients, including Appalachian migrants...Among recent migrants, different names for health problems are often used which are not understood by non-Appalachian physicians, nurses, and other professionals. Even accents and speech patterns can create serious barriers to effective personal interaction in the health care setting" (1983:205,207).

An estimated seven million people have migrated from Appalachia in the past 40 years. The migration of the earlier decades focused on the urban industrialized areas of the east and the midwest; Baltimore, Chicago, Detroit, Cleveland, Indianapolis, Columbus, and Cincinnati now have substantial urban Appalachian populations. More recently, the migration streams from Appalachia have shifted to the southeast and the southwest; Houston, Phoenix, Atlanta, Miami, and Tampa/St. Petersburg are the new destinations (Obermiller and Oldendick 1986). With large numbers of first- and second-generation Appalachian migrants now residing in major metropolitan areas of the United States, urban health care providers have a greater need for accurate information about the cultural background and the special health concerns of this group. Such practical knowledge can enhance communication between patient and provider and can increase the effectiveness of diagnostic procedures, treatment compliance, and patient education.

This paper will examine the medical beliefs and practices of urban Appalachians and will contrast them with those of other groups. We will begin by examining previous studies of urban Appalachian medical beliefs and practices. Next we will present a demographic overview of the urban Appalachian population in Cincinnati, contrasting it with the demographic characteristics of blacks and of other urban whites in the city. Continuing the comparative model, we will examine for each group 1) their concerns about six major health risks, 2) their smoking, diet, and exercise behaviors, and 3) their beliefs about the causes of good health and illness. We will analyze these findings in the discussion and will conclude with some specific suggestions for better serving urban Appalachian patients.

Previous Studies

Although health issues and service strategies in the Appalachian region are reasonably well documented (Appalachian Center 1986; Couto 1978, 1983; Hamilton 1962; Looff 1971; Pearsall 1960), substantially less is known about the health problems and the accessibility of medical services for urban Appalachians. Much of the literature on urban Appalachian health concerns is quite dated (Giffin 1954; Porter 1961, 1963a, 1963b; Powles 1964), is obscure (Bozian and Huelsman 1968; Guenther 1977; Watkins 1974), or appears as incidental sections of larger reports (Kunkin and Byrne 1971; Philliber 1981). The two key contributions to the literature are studies by Watkins (1973) and Friedl (1978, 1983).

Virginia McCoy Watkins (1973) notes the key roles of home remedies, folk medical practices, and faith healing in the migrants' background. Modern medicine is not unknown in the mountains, but is relatively difficult to obtain. Few opportunities for nutritional education or for preventive health care measures are available. Watkins points out that in the mountains health care generally is sought and provided on a crisis basis. Medical procedures under emergency conditions are drastic, impersonal, and frequently ineffective; this unfortunate situation, usually accompanied by many unfamiliar bureaucratic forms and procedures, fosters a fear and a suspicion of health care providers that Appalachians bring with them into urban environments.

In a study of health problems faced by Appalachians, John Friedl (1978) interviewed 51 providers and 106 Appalachian migrant families in Columbus, Ohio, about health-related topics. His findings are consistent with Watkins's in that the rural health care experiences of Appalachian migrants influence their expectations of urban health care providers. The physician in the mountains has fewer staff resources and therefore more direct contact with the patient. Because of cost and travel time, referrals to distant specialists are rare; for similar reasons the mountain physician is more likely to attempt a "one-shot" cure than a series of treatments, and drugs are distributed more frequently at the time of treatment than by prescription. Third-party payments are less typical in rural areas, so fees are lower and payment schedules are more flexible. The sharply contrasting styles of health care service in rural and in urban settings often lead to confusion, distrust, and negative stereotypes on the part of both the Appalachian migrant and the urban medical provider.

The Current Study

Whereas previous studies focus on Appalachian migrants and their interaction with urban health care systems, this study compares the health concerns and behaviors of urban Appalachians with those of their black and non-Appalachian white counterparts in the city. The cultural characteristics of urban Appalachians are maintained through extended family networks, tightly knit occupational and residential patterns, and frequent visits to their counties of origin. Migration from the region peaked 30 years ago, however, and the children and grandchildren of the migrants have grown up in urban neighborhoods. This study explores the dif-

ferences between contemporary urban Appalachians and other urban groups in regard to health concerns, behaviors, and beliefs.

The data employed in this study were collected as part of the fall 1987 Greater Cincinnati Survey, a random-digit-dialed telephone survey of adult residents of Hamilton County, Ohio. As part of this survey, interviews were conducted with 512 residents of the city of Cincinnati, who were asked a series of questions about their health, health-related concerns, and health-care behaviors.

Questions concerning the birthplaces of the respondent and the respondent's parents were not included in this survey, so this method could not be used for determining Appalachian origin. Therefore, in conducting this secondary analysis we were forced to use a different approach in identifying Appalachian respondents. The validity of this approach is crucial for the analyses presented here, so we will describe our methods in some detail.

The residential clustering of Appalachian migrants in urban neighborhoods has been well documented (Fowler 1981; Fowler and Davies 1972; Maloney 1985; McKee 1978; Philliber 1981). We elected to follow Maloney's (1985) typology of the social areas of Cincinnati developed for the city's Human Relations Commission. Maloney develops objective criteria for classifying census tracts (aggregated into neighborhoods) as being predominantly black, Appalachian, or white.

Neighborhoods are designated as black if the black population exceeds the city average of 35.4%. This is a conservative measure since neighborhoods so designated are, on the average, 75.8% black (Maloney 1985:78).

Since Appalachians are not readily identifiable from census data, Maloney establishes seven criteria for classifying a Cincinnati neighborhood as Appalachian: 1) more than 19.14% of the families are below poverty level; 2) less than 35.36% of the residents are black; 3) less than 51% of the residents 25 and older are high school graduates; 4) more than 18% of the out-of-school population between 16 and 19 years of age are not high school graduates; 5) more than 12.6% of the population between 16 and 19 are jobless; 6) more than 34.4% of the population are service, semi-skilled, or unskilled workers; and 7) family size averages more than 3.19 persons per family.

Using the standards set forth above, Maloney classified 16 Cincinnati neighborhoods as black, nine as Appalachian, and the remaining 23 as white.

Because a question about race was asked of these respondents, the data for blacks allow us to test these procedures. Among those who were identified as black on the basis of their residence, 74% were black and 26% were white. Similarly, the census location categorized 62% of those who actually were black as black and 93% of those who actually were white as white. Although these procedures produce some misclassifications, a significant overlap exists between reported race and race designated on the basis of this classification scheme.

We refined this measure further by taking those blacks who were classified as "other whites" on the basis of census tracts and placing them into the black category and by transferring those whites who were classified as black into the "other white" category. As a result of this adjustment, everyone classified in the black category is black; the Appalachian category contains respondents living in tracts that are classified as Appalachian (including some non-Appalachian whites and some blacks); and the "other white" category consists entirely of white respondents, including those white Appalachians who live in the city in tracts not classified as Appalachian. Any effect of such groupings would make the results more conservative; differences that exist between Appalachians and other whites may be muted because the Appalachian classification is not pure and because some Appalachians are classified as "other whites."

Table 1

Comparison of Selected Demographic Characteristics of Blacks, Appalachians, and Whites Residing in Cincinnati, 1987

	Blacks %	Appalachians %	Whites %
Age			
18 to 29	32.7	25.4	28.5
30 to 45	19.1	26.1	18.4
46 to 64	27.2	34.0	23.1
65 and older	21.0	14.5	30.1
Sex			
Male	43.1	22.6	45.3
Female	56.9	77.4	54.7
Educational Attainment*			
Less than high school	47.4	66.6	32.0
High school graduate	32.5	19.9	30.9
Some college	13.4	11.2	18.7
College graduate	6.7	2.3	18.3
Occupational Status*			
Professional, technical	12.6	5.0	25.7
Managers, administrators	6.4	2.7	7.5
Sales, clerical	28.5	37.7	32.1
Craftsworkers	8.8	13.8	12.1
Operatives	16.7	25.5	10.0
Laborers, service	27.1	15.2	12.5
Annual Family Income			
$19,999 or less	43.9	63.6	44.6
$20,000 to $39,999	39.6	29.8	33.6
$40,000 or more	16.4	6.7	21.8

* indicates $p < .001$

We recognize the hazards involved in attempting to infer individual characteristics on the basis of aggregate statistics. Still we believe that our approach is the most reasonable method for examining this question in view of what is known about the residential clustering of Appalachians, the results obtained by using this approach with black respondents, our ability to refine this measure to some extent, and the lack of any other means for identifying Appalachian respondents with these data. As mentioned above, the effect of this inability to identify Appalachians more precisely will be to moderate the differences between Appalachians and other groups; this fact should be kept in mind when interpreting the results.

Of the 512 city residents interviewed, 146 (28.5%) were black, 75 (14.6%) were categorized as Appalachian, and 291 (56.9%) were designated as "other whites." The proportions of these groups in the city's population are consistent with those found in earlier studies; similarly, the proportion of Appalachians identified as black (12.9%) in this study coincides with that found in previous research (Community Chest and Council of the Cincinnati Area, 1983; Philliber and Obermiller 1982).

Findings

The data in Table 1 indicate the differences in the demographic characteristics of the groups in this sample. Differences in age distribution are not statistically significant, but there are fairly large differences in sex, family income, education, and occupation. A much higher percentage of females appears among Appalachians than among either blacks or other whites. All three indicators of socioeconomic status show other whites to be at the high end of the SES scale, with Appalachians at the low end and blacks in the middle. Whereas 32% of other whites had less than a high school education, for example, this percentage was 47% among blacks and 67% among Appalachians. Similarly, one-third of other whites were employed in professional, technical, or managerial occupations, while only 19% of blacks and only 8% of Appalachians were in such occupations. While 22% of other whites reported family incomes of $40,000 or more, only 16% of blacks and 7% of Appalachians had incomes at this level. Although the lower socioeconomic status found among Appalachians is attributable in part to the higher percentage of females in the sample, it is evident that Appalachians are generally lower in socioeconomic status; as a group they are closer to blacks on these characteristics than to non-Appalachian whites.

Table 2 presents a comparison of black, Appalachian, and non-Appalachian white respondents' concerns about six specific health risks and about overall health. Significant differences in concern were found on each of the specific risks -- with the exception of diabetes -- and in concern for one's overall health. Blacks and Appalachians show similar concerns about the risks of heart attack, stroke, emotional or mental illness, or serious accidental injury. Non-Appalachian whites are generally less concerned about these problems. Blacks and Appalachians differ in their concern over cancer; about 38% of blacks are extremely concerned about cancer, compared with 21% of Appalachians and 18% of non-Appalachian whites. Concerns about overall health also differentiate the three groups. Blacks show the highest percentage of respondents (28%) who are extremely concerned about their overall health, while only 8% of non-Appalachian whites express such extreme concern. The percentage of Appalachians who are extremely concerned about their overall health (16%) falls between these two groups.

Overall, blacks and Appalachians exhibit more concern about a variety of health risks than non-Appalachian whites. These two groups differ, however, on their concern over cancer and for their overall health; a higher percentage of blacks than of Appalachians is extremely concerned about these factors.

When questioned about beliefs and practices regarding diet and exercise, each of the three groups express approximately the same opinions and behaviors. More people in the sample believe in the importance of exercise than actually exercise weekly. The same is true of diet, but with a larger gap between belief and practice.

Although Table 3 shows that more than three-quarters of each group associate smoking with cancer and heart disease, more than two-thirds of the Appalachian respondents are currently smokers, as compared with fewer than one-third of the black and the other white cohorts.

Table 4 presents data on the respondents' perception of the causes of good and bad health. A large proportion of each group believes in the importance of

TABLE 6: Other Health Information

Item	Options	Percentage
1. See a medical doctor:	daily	0% (0)
	weekly	5.3% (2)
	monthly	23.7% (9)
	yearly	57.9% (22)
	never	13.2% (5)
2. Overall health:	very healthy	15.8% (6)
	moderately healthy	31.6% (12)
	about average	47.4% (18)
	moderately unhealthy	5.3% (2)
	very unhealthy	0% (0)
3. Weight:	very overweight	5.3% (2)
	moderately overweight	34.2% (13)
	about average	50.0% (19)
	moderately underweight	7.9% (3)
	very underweight	2.6% (1)
4. Internal Locus of Control:	Mean 9.50	
	Median 10.00	
	Range 0 - 12	
	SD 1.97	

4. RCEC should encourage the development of community resources for intervention and treatment of mental health problems relating to stress. For example, RCEC students could be trained as lay counselors to provide help to fellow students and members of the local community. A crisis phone line could be started as part of a community-wide suicide prevention program.

5. RCEC should become more active as an advocate and information clearinghouse on local environmental concerns. Strip-mining reclamation needs more public visibility and interest. Excessive tree-cutting and the burning of coal for heat instead of natural gas are additional concerns. Courses taught in biology and sociology could raise the consciousness of students about community health hazards which exist in the area.

Conclusion

Rural adult educational cooperatives offer hope to individuals and communities in Appalachia who are interested in self-improvement and regional progress. However, low-income adult learners can experience significant increases in stress and a host of associated health problems in going back to college. They must cope not only with the expected pressures of studying but also with jobs, family responsibilities, and social commitments to the community.

On the other hand, the personal and community benefits of adult education are significant, too. In this paper, we have attempted to demonstrate that self-study by groups such as RCEC can clarify the problems related to increased stress among their students. Once clarified, solutions can be sought, so that both the student and the cooperative are empowered to persevere and succeed.▪

Table 2

Comparison of Concerns of Blacks, Appalachians, and Whites in Cincinnati about Selected Health-Related Topics, 1987

	Blacks %	Appalachians %	Whites %
Cancer*			
Extremely concerned	37.7	21.3	18.3
Not too concerned	25.9	23.5	34.5
Heart Attack*			
Extremely concerned	21.9	25.3	11.9
Not too concerned	24.5	34.4	31.9
Diabetes			
Extremely concerned	13.5	9.7	11.4
Not too concerned	39.7	49.7	53.9
Stroke*			
Extremely concerned	16.0	20.0	10.0
Not too concerned	25.1	32.3	49.1
Emotional or Mental Illness*			
Extremely concerned	13.6	11.3	6.1
Not too concerned	53.0	46.9	66.3
Serious Accidental Injury*			
Extremely concerned	20.4	22.7	8.0
Not too concerned	22.6	22.0	42.8
Overall Health*			
Extremely concerned	27.6	16.0	7.8
Not Too concerned	12.5	16.6	28.4

* indicates $p < .001$

self-care; smaller but substantial numbersbelieve that their health is influenced by heredity, family, and friends. Fewer still attribute their good health to luck or their poor health to God; very few believe that illness is a result of physician failure.

Despite overall similarities in beliefs about the causes of good or bad health, some interesting divergences occur among the three groups. Substantially more Appalachians and blacks than non-Appalachian whites believe that illness is caused by God. Appalachians are least likely to believe that one can avoid illness by taking good care of oneself, while other whites

Table 3

Comparison of the Opinions and Behaviors of Blacks, Appalachians, and Whites in Cincinnati Involving Selected Health Issues, 1987

	Blacks %	Appalachians %	Whites %
Smoking			
Associates smoking with cancer or heart disease	90.9	75.9	86.0
Is currently a smoker*	32.0	68.7	30.3
Exercise			
Believes strongly in the importance of exercise	80.4	63.6	68.9
Exercises at least 4 times a week	58.7	58.5	50.1
Diet			
Believes strongly in the importance of a balanced diet	81.7	85.7	81.9
Almost always eats a balanced diet	23.0	10.6	24.6

* indicates $p < .001$

show the highest percentage of those who believe that relationships with family and friends affect health.

Discussion

Although the process of assimilation appears to have reduced the importance of the Appalachians' rural background and migration experiences, health care professionals would be remiss in ignoring their patients' Appalachian heritage. The evidence presented above indicates that urban Appalachians cannot be categorized readily either by class or by race.

In regard to demographics, urban Appalachians have the same low socio-economic status as urban blacks, and express similar concerns about major health risks. Moreover, a ranking of health concerns by culture group shows that Appalachians have health priorities which are distinct from those of the other two groups.

Blacks and non-Appalachian whites cite cancer as their primary health concern, followed by heart disease. Among Appalachians, however, heart disease is the primary concern, followed by accidental

Table 4

Comparison of the Beliefs of Blacks, Appalachians, and Whites in Cincinnati about Various Influences on Health, 1987

	Blacks %	Appalachians %	Whites %
Influence of Heredity Believes strongly that genetic inheritance influences health	38.9	36.6	48.5
Influence of Luck Believes that good health is a matter of good luck	19.5	26.5	19.7
Influence of Family and Friends* Believes that relationships with family and friends affect respondent's health	35.7	39.2	42.9
Influence of God* Believes that illness is caused by God	29.4	22.0	6.2
Influence of Self-Care* Believes that one can avoid illness by taking good care of self	87.7	64.4	81.1
Influence of Physician Believes that illness is due to failure on doctor's part	0.3	5.8	2.7

* indicates $p < .001$

injury and cancer. A much lower percentage of non-Appalachian whites than of either Appalachians or blacks is concerned about accidental injury.

Appalachian concerns about heart disease can be linked to smoking, which will be discussed below. The concern about accidental injury may be related to the fact that many Appalachians have experienced the perils of working in the central Appalachian coalfields and driving on dangerous mountain roads. In addition, urban Appalachian workers (as well as blacks) frequently are employed in manufacturing and service jobs with a high incidence of occupational hazards. The relatively low concern about cancer can be attributed to the apparently low incidence of cancer in the Appalachian region. (Current research suggests that this finding is likely a misperception. Cancer is probably more prevalent in the Appalachian region than is shown in many standard atlases of

cancer mortality; see Hisley 1987.)

The data show that urban Appalachians have knowledge similar to that of other city residents about the consequences of smoking, regular exercise, and proper nutrition. Yet they are more than twice as likely to be smokers as the black or the other white respondents. Most urban Appalachians have roots in a rural region whose main cash crop is tobacco; the use of tobacco products is not only socially acceptable among mountain men and women, but also is widely perceived as critical for economic survival.

The urban Appalachian cohort is less likely than other whites to believe that genetic inheritance strongly influences overall health, and more likely to believe that good health is a matter of luck and that illness is caused by God. These opinions can be associated with the fundamentalist religious beliefs typically found in the Appalachian region and throughout the rural south. Concepts of genetic mutation and inheritance are linked closely with arguments for human evolution, a scientific tenet that conflicts with literal interpretations of the Bible. Similarly, in fundamentalist belief the hand of God is involved directly in human affairs, including punishment through illness and forgiveness through healing.

Conclusion

Although some urban Appalachians are now two and three generations removed from mountain life and the migration experience, it is premature to assume that assimilation has eliminated a particular cultural perspective from their health care concerns and needs. Alert health care providers can identify the urban Appalachian neighborhoods in their service areas. Informal screening techniques, such as asking where the patient's parents or grandparents used to live can confirm Appalachian heritage.

A basic knowledge of Appalachian history and culture on the part of health care professionals can do much to alleviate miscommunication, particularly in areas where scientific and religious assumptions come into conflict. Understanding the occupational health hazards typically faced by Appalachian workers can expedite diagnosis; many black-lung victims move to urban neighborhoods after they become disabled. Educational programs aimed at stopping or reducing smoking, when presented properly, can have a positive effect on urban Appalachians' well-being.

As with other groups of health care consumers, adding a cultural perspective to medical competence can greatly enhance medical services to urban Appalachians.▪

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STRESS AND HEALTH BEHAVIORS IN A RURAL ADULT EDUCATIONAL COOPERATIVE

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Abstract

Low-income students from an educational cooperative in rural Appalachia answered questions about stress levels, health behaviors, somatic complaints, and other medical-related information. Many students reported significant problems stemming from the demands of their education involvements. At the same time, positive effects of working together toward a common goal and learning to meet new challenges successfully were acknowledged. Members of the cooperative were able to formulate helpful responses to these results, such as providing life skills training for student and encouraging the development of community resources for intervention and treatment of mental health problems related to stress.

Introduction

Adult education can be a potent force for community development and individual self-improvement in Appalachia. In fact, adult education may be one of the few viable options left in the region to address the serious problems of poverty, poor health, and unemployment that exist here. Other solutions are elusive because of current trends, such as the decline in the coal and textile industries, the reduction of federal welfare programs, and the lack of local control over key resources like land use. On the positive side, new alliances committed to regional progress are emerging, such as those between the local liberal arts college and the grass-roots citizens group. Such partnerships that bring educational opportunities to the mountains may be the region's best hope for a better tomorrow (Osborne, Carter, and Butler, 1987).

A partnership approach to regional problems utilizing education is promising, but it is not an easy route to take. Many obstacles make such cooperative ventures difficult. For example, the grass-roots citizens group may be critical of establishment values, whereas the liberal arts college is part of the establishment. Faculty may be traditional in their pedagogy, whereas students may see education as a means of social change. However, such obstacles are not insurmountable, particularly when efforts are made on both sides to understand and adjust to each other (Heinrich, Osborne, and Carter, 1988).

Other obstacles may exist within the educational process itself. Going back to college for adults can be stressful. Added demands on already limited amounts of time, energy, and money can create new problems for students. In a sense, the adult learner in Appalachia faces a catch-22. She must have education to help solve the problems of unemployment, poverty, and poor health. Yet these same problems make it difficult to get education and may themselves be exacerbated by the stress of going back to school.

Stress and other practical problems of living must be addressed if adult education is to fulfill its potential for helping individuals and communities in the mountains. The purpose of this paper is to examine the incidence of stress and stress-related behaviors among students in a rural adult educational cooperative. We hope to gather information about a wide array of health concerns possibly related to stress, such as typical somatic complaints, availability of medical care, and the presence of community health hazards. Such information should prove useful in understanding the problems, strengths, challenges, and opportunities facing the adult learner in our Appalachian communities. Further, this information will permit the educational cooperative, in partnership with the academic institution, to begin formulating responses to health issues related to the

adult learner and her community.

We will begin by presenting some background on the Rural Communities Educational Cooperative in Jellico, Tennessee, based on promotional and historical material RCEC itself developed. Then we will convey what we learned from interviewing 10 current members who represent a cross-section of the Cooperative in terms of such factors as age, length of involvement, and family status. Next, results of a survey administered to the adult students will be summarized. Data on demographic and health information, community health hazards, and stress levels are included. Last, we will report the suggestions offered by members of the Cooperative on how the group can respond to the information in this study to help themselves as well as the surrounding community.

Background

Rural Communities Educational Cooperative (RCEC) grew out of the awareness on the part of Mountain Women's Exchange in Jellico, Tennessee, that a key to rural economic development and the betterment of community services is educated local leadership: women and men who have skills in areas of management, business development and social services provision, and who have the awareness of history, politics, natural resources and culture necessary to give them the assurance and perspective needed for personal success and community betterment.

Initial planning for RCEC began in October of 1982, with the formation of a ten-member advisory committee of residents of the communities served by the Mountain Women's Exchange. The committee soon discovered that the interest in higher education among the Exchange members was indeed reflected in the community at large. After two weeks of word-of-mouth advertising, 150 people had signed indications of interest for taking college courses.

RCEC's first contract was with Roane State Community College of Harriman, Tennessee, and the first quarter was in the spring of 1983. The student enrollment was 20-25 students per quarter, with two courses being offered each quarter. Around the third year of RCEC's existence, students began saying they wanted a bachelor's degree instead of an associate degree. After many contacts and conversations, Carson-Newman College in Jefferson City, Tennessee, agreed to enter into a partnership with RCEC to help students attain this new goal.

After the first year with Carson-Newman, the student enrollment jumped to 60-80 students per semester and the number of courses being offered increased to ten. In December, 1988, RCEC had its first graduation class of three students. More students are scheduled to graduate May and December, 1989, and RCEC foresees further graduations on a regular basis.

Historically, the average student of RCEC has been a working woman in her mid-thirties. Most students are the primary source of income for their families. Because of the lifestyle of many students, RCEC has been concerned with stress and stress-related health problems. Working all day, taking care of children, taking night classes, and studying make for a heavy work load. In addition, many of students carry a full-time course load with 12 or more hours per semester.

One way RCEC has tried to lighten this load is by offering students a support system. Collaborative work in study groups is common. Tutorial sessions and meetings with fellow majors are other ways students get support. Also, the RCEC coordinator seeks to play an important role as facilitator, helper, and advisor.

Interviews

Ten current RCEC students were asked questions about the stress they encounter in their academic and personal lives. The following is a summary of the responses from students and the impressions of the interviewers.

One overriding point is that RCEC views

TABLE 1: Demographic Information (N=38)

	Options	Percentages
1. Sex:	female	86.8% (33)
	male	13.2% (5)
2. Age:	19 or less	15.8% (6)
	20 - 29	34.2% (13)
	30 - 39	23.7% (9)
	40 - 49	18.4% (7)
	50 or more	7.9% (3)
3. Race:	white	97.4% (37)
	black	2.6% (1)
	other	0% (0)
4. Marital Status:	single	31.6% (12)
	divorced/separated	28.9% (11)
	married	36.8% (14)
	widowed	2.6% (1)
5. Number of children:	zero	34.2% (13)
	one	28.9% (11)
	two	7.9% (3)
	three	15.8% (6)
	four or more	13.2% (5)
6. Number of parents/ grandparents who died before age 60:	zero	42.1% (16)
	one	23.7% (9)
	two	13.2% (5)
	three	15.7% (6)
	four or more	5.3% (2)
7. Family Income:	less than 10,000	55.3% (21)
	10,000 - 19,000	31.6% (12)
	20,000 - 29,000	7.9% (3)
	30,000 - 39,000	2.6% (1)
	40,000 or more	2.6% (1)
8. Taking College Courses:	less than 1 year	34.3% (13)
	about 1 year	10.5% (4)
	about 2 years	18.4% (7)
	about 3 years	10.5% (4)
	4 or more years	26.3% (10)
9. Highest Educational Degree:	high school diploma or GED	92.2% (35)
	trade school or military program	2.6% (1)
	2 year associate degree	2.6% (1)
	4 year college degree	0% (0)
	masters degree	2.6% (1)
	doctorate degree	0% (0)
10. Number of Campus or Community Organizations:	zero	52.6% (20)
	one	28.9% (11)
	two	7.9% (3)
	three	5.3% (2)
	four or more	5.3% (2)
11. Number of Leadership Positions:	zero	68.5% (26)
	one	26.3% (10)
	two	2.6% (1)
	three	0% (0)
	four or more	2.6% (1)

itself as a group of students working together to achieve a common goal. At the same time students are striving for a common goal, each has his or her own personal reason for wanting to get a college education. The students are proud of the cooperative of which they are a part, but they also value their individuality. They like to be recognized for their own strengths, weaknesses, and individual goals. The majority of these students have families and jobs, and many play an active role in the community. They are active in the schools, churches, and various civic groups in the Jellico area. These students have very full lives with a number of responsibilities. Therefore, attending college classes is not something they do to fill their time, but a goal for which they are willing to make sacrifices.

Although college is a personal goal the students have set for themselves, it adds to their already stressful daily lives. In conducting interviews with the students, it became evident that a major source of stress related to attending school is the time involved. The students said that preparing for and attending classes take time away from their family lives. They also said that the additional pressures of college, on top of their other responsibilities, can create a work load that is overwhelming. One student summed up her hectic schedule by saying, "There just doesn't seem to be enough hours in the day to accomplish everything that I am responsible for."

The interviews also showed that some students experience additional stress in the classroom due to their emphasis on grade-point average. One student commented, "If I can't give my classes my best, then why try at all?" Another student said, "College has increased my stress level, because I am a perfectionist and feel that I have to excel in my classes." The students said they want to excel not to prove to others that they can, but to prove to themselves that they have the ability and determination to succeed. Some individuals choose to view their college classes as a challenge. They said that each class successfully completed helps to build their self-confidence.

The personal interviews revealed that the students have a positive attitude toward the time spent continuing their education. They said that college has been both a very challenging and rewarding experience. The students expressed the feeling that the time it takes to attend school is time well spent and the ultimate goal is worthwhile. One student expressed her feelings about the time spent furthering her eduction by saying, "I feel good about it, because it lays a foundation for the future." Thus, students saw positive as well as negative aspects to the increased stress they were experiencing.

Survey Results

Thirty-eight RCEC students from several different classes completed a 75-item survey designed to measure demographic and health information, community health hazards, and stress levels. This represents about two-thirds of the students in RCEC. Surveys were completed in the fall 1988 semester. The data are presented in Tables 1-6.

Table 1 displays descriptive information on the characteristics of the people enrolled in RCEC courses. Most are white females, presently or previously married, with children. About half are under 30, and about half are over. Most have had at least one parent or grandparent die young. Most RCEC students have strikingly low incomes, but more and more are advancing in their program of college courses. A sizeable minority belong to organizations, and over 30% hold leadership positions.

Table 2 displays the health behaviors reported by students. Although most are frequent smokers, few other serious problems are evident, other than some tendency to overeat and consume high quantities of caffeine. It was reassuring that smoking was not usually accompanied by heavy alcohol use and a lack of physical activity, since this is a pattern epidemiological studies have found to be associated with

TABLE 2: Health Behaviors

	Frequency				
	Daily	Weekly	Monthly	Yearly	Never
Behavior					
smoke	65.8% (25)	0% (0)	0% (0)	0% (0)	34.2% (13)
overeat	28.9% (11)	26.3% (10)	21.0% (8)	7.9% (3)	15.8% (6)
alcohol intoxication	5.3% (2)	5.3% (2)	13.2% (5)	18.4% (7)	57.8% (22)
exercise	13.2% (5)	34.2% (13)	18.4% (7)	7.9% (3)	26.3% (10)
illegal drugs	5.3% (2)	5.3%% (2)	2.6% (1)	5.3% (2)	81.6% (31)
valium	2.6% (1)	5.3% (2)	0% (0)	10.5% (4)	81.6% (31)
caffeinated beverages	78.9% (30)	13.2% (2)	0% (0)	5.3% (2)	2.6% (1)
7+ hours of sleep	47.4% (18)	39.5% (15)	5.3% (2)	5.3% (2)	2.6% (1)
prescribed drugs	18.4% (7)	0% (0)	13.2% (5)	15.8% (6)	52.6% (20)

significant increases in death rate (Berkman & Breslow, 1983; Wingard, Berkman, & Brand, 1982).

Among the somatic complaints, displayed in Table 3, the most frequently reported problems were tiredness, nervousness/anxiety, insomnia, headaches, and depression. Such problems are noteworthy because they are indicative of stress (Pelletier, 1977). But relatively few students reported having stomach pains or shortness of breath.

Community health hazards are displayed in Table 4. Given the widespread reputation of this area for pollution and other environmental hazards (Carter & Osborne,

TABLE 3: Health Problems

	Frequency				
	daily	weekly	monthly	yearly	never
Problems					
headaches	10.5% (4)	28.9% (11)	44.7% (17)	10.5% (4)	5.3% (2)
insomnia	13.2% (5)	28.9% (11)	15.8% (6)	21.1% (8)	21.1% (8)
depression	13.2% (5)	21.1% (8)	28.9% (11)	23.7% (9)	13.2% (5)
nervous/anxious	23.7% (9)	28.9% (11)	28.9% (11)	13.2% (5)	5.3% (2)
stomach pain	7.9% (3)	15.8% (6)	44.7% (17)	15.8% (6)	15.8% (6)
shortness of breath	5.3% (2)	10.5% (4)	10.5% (4)	28.9% (11)	44.7% (17)
tiredness	39.5% (15)	34.2% (13)	21.1% (8)	2.6% (1)	2.6% (1)

TABLE 4: Community Health Hazards

Hazard	Degree of Safety: very healthy/ safe	moderately healthy/ safe	not sure/ about average	moderately unhealthy/ unsafe	very unhealthy/ unsafe
food	21.0% (8)	52.6% (20)	23.7% (9)	2.6% (1)	0% (0)
water	21.0% (8)	50.0% (19)	23.7% (9)	2.6% (1)	2.6% (1)
air	10.5% (4)	44.7% (17)	34.2% (13)	7.9% (3)	2.6% (1)
traffic areas/roads	0% (0)	28.9% (11)	28.9% (11)	31.6% (12)	10.5% (4)
waste disposal	10.5% (4)	21.0% (8)	31.6% (12)	28.9% (11)	7.9% (3)
hazardous material transport	7.9% (3)	15.8% (6)	50.0% (19)	18.4% (7)	7.9% (3)
work environment	13.2% (5)	39.5% (15)	44.7% (17)	2.6% (1)	0% (0)
recreational areas	5.3% (2)	34.2% (13)	44.7% (17)	13.2% (5)	2.6% (1)
home (apt., dorm)	26.3% (10)	55.3% (21)	13.2% (5)	5.3% (2)	0% (0)

1987), the generally low levels of reported problems are surprising. The only items rated as unsafe by more than a quarter of the students were traffic areas and roads, how waste is disposed of, and the fact that hazardous materials are transported through the area.

Table 5 displays reported stress levels. The greatest sources of stress were studying and taking exams, leading a group or speaking in public, and worrying about jobs, money, and how one's family will be supported. Other important sources of stress were taking action on behalf of social issues, worrying about the future, dealing with problems at work, and being with family. An interesting point about these data is the similarities and differences that appear to exist between RCEC students and more traditional college students. Despite the fact that these are low-income adult learners in rural Appalachia, they still experience the same stress as students everywhere over the academic pressures of studying, taking exams, and speaking before a group. In addition, however, they experience more stress from other sources that are unique to their life circumstances. Also, because RCEC students often care about issues such as social justice and community empowerment, they probably experience more stress than "regular" adult students in the typical university continuing education program. They are thus coping with a triple dose of stress: going to college, being responsible for work and family, and being social change agents.

Other health information is displayed in Table 6. Most students reported having access to medical treatment, an encouraging result, given their low incomes. Most rated their health as average or better and their weight as average to moderately heavy. The internal locus of control measure (Rotter, 1966) is especially interesting. Representing personality traits such as self-confidence, feelings of being in control, and empowerment, the average locus of control of these students was quite high. Apparently, the stereotype of the low-income rural adult in Appalachia as inevitably feeling powerless and hopeless (Susser, 1983) does not hold for

TABLE 5: Stress Levels

Stressor	Stress Level: highly stressful	moderately stressful	average	slightly stressful	not at all stressful
family:	7.9% (3)	18.4% (7)	36.8% (14)	23.7% (9)	13.2% (5)
at work:	7.9% (3)	21.0% (8)	44.7% (17)	21.0% (8)	5.3% (2)
study exams:	44.7% (17)	26.3% (10)	21.0% (8)	7.9% (3)	0% (0)
being alone:	5.3% (2)	5.3% (2)	15.8% (6)	21.0% (8)	52.6% (20)
people:	7.9% (3)	10.5% (4)	31.6% (12)	28.9% (11)	21.0% (8)
future:	15.8% (6)	21.0% (8)	36.8% (14)	18.4% (7)	7.9% (3)
jobs/money:	47.4% (18)	18.4% (7)	18.4% (7)	15.8% (6)	0% (0)
lead a group:	44.7% (17)	23.7% (9)	18.4% (7)	10.5% (4)	2.6% (1)
take action on social issues:	18.4% (7)	21.0% (8)	31.6% (12)	18.4% (7)	10.5% (4)

RCEC students. This may be testimony to RCEC's effect on people. Once students discover they can succeed in college and can participate actively and collectively in determining their education, powerlessness and hopelessness may be replaced by feelings of confidence and empowerment.

Suggestions

After the interviews and surveys were completed, a discussion to brainstorm possible responses to the findings was held among about 25 students as part of a class exercise. This class was part of Introduction to Adult Education, a new and unique orientation-to-college course for students, taught jointly by RCEC staff and regular faculty. The following points represent a consensus of RCEC students' suggestions.

1. RCEC should encourage the development of community resources for healthful, preventive responses to stress. A recreation hall, health spa, or outdoor recreation area could offer alternatives to bars and drugs. A chapter of S.A.D.D. [Students Against Drunk Driving] and better enforcement of attendance policies at the local high school could encourage self-responsibility among the teenagers.

2. RCEC should address the issue of smoking. For example, policies about smoking in class could be discussed at the beginning of the the semester, with sensitivity shown to smokers and non-smokers alike. Health information could be made available to facilitate education and informed decisions about smoking and other drug use.

3. For its students, RCEC should provide Life Skills Training in such areas as time management, effective study strategies, and relaxation. For college faculty, there should be regular orientations to RCEC, the special needs of adult learners, and integrating academic content with local concerns and student experiences. (A progress note: each of these topics was eventually included in the Introduction to Adult Education course, which may be a very appropriate forum for addressing such issues.)

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DEMONSTRATION PROJECTS

THE POTENTIAL FOR HOSPITAL ALLIANCES IN APPALACHIA: A CASE STUDY OF THE WESTERN NORTH CAROLINA RURAL HOSPITAL ALLIANCE

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Abstract

Recent changes in federal reimbursement methods, plus emerging competition among health insurers, have placed a financial squeeze on most hospitals. Small rural hospitals appear especially vulnerable to the changes. This paper examines the advantages for regional hospitals of participating in an alliance and details the formation of the Western North Carolina Rural Hospital Alliance, instituted in 1986 by six rural hospitals. This Alliance is offered as a possible model for other hospitals in Appalachia, since the characteristics of the area served are similar to much of the Appalachian region.

Introduction

Many uncertainties face hospital administrators today, especially administrators of small rural hospitals. The ability to provide quality care at acceptable cost is of growing concern, because of new financial constraints as well as an expected emphasis in the late 1980s on monitoring the quality of care by the federal government and the Joint Commission on Accreditation of Healthcare Organizations. Many hospitals are facing the issue of survival.

Managing a small rural hospital has always had special problems. Small hospitals do have some advantages such as shortened lines of communication, community support for a single facility, and a less competitive environment; on the other hand, there are problems of staff recruitment, capital generation, lack of economies of scale in purchasing, and a more variable daily census and cash flow. Some experts predict that, because of the decreasing size of the hospital industry, as many as 1000 hospitals, many of them rural, will close by 1990. According to the American Hospital Association (AHA), the trend is already evident, with 71 community hospitals closed in 1986, compared to 49 in 1985. Most affected were small rural hospitals; of the 71 hospitals closed in 1986, 59 were small (fewer than 100 beds), and over half were in rural areas.[1]

The current financial squeeze began with legislation aimed at curbing the increasing rate of healthcare costs. In 1982, when healthcare expenditures in the United States totaled more than $322 billion and exceeded 10% of the Gross National Product, creating a sense of near panic in Washington, far-reaching changes were made. The old retrospective method of reimbursing hospitals for medicare patients was replaced by a prospective payment system (PPS) based on Diagnostic Related Groups (DRGs). Insurance companies followed the lead of the federal government with closer scrutiny of payments for hospitals. Alternative forms of delivery and financing, such as HMOs and PPOs, became a significant part of the health care industry.

Hospital profits have dwindled under PPS, with many hospitals operating at a loss. Hospitals are being forced to examine new sources of revenue and to be selective about what services to offer and which to drop. Some are trying to buy time by using up their depreciation funds.

Presently 40% of the hospital beds in this country are empty, compared to 25% in 1980. Utilization is related to four factors: admissions, inpatient days, occupancy rates, and average daily census. All of these factors continue to decline for all hospitals, but the smaller hospitals are hardest hit. In North Carolina, all hospitals except those in 200-299 bed range showed a decline in the utilization factors. The hardest hit were the hospitals with fewer than 100 beds.[2]

Because of the highly competitive nature of the healthcare personnel market place, payroll and benefit expenses have continued to increase even while utilization rates for hospitals have declined. This is particularly true for registered nurses with a present shortage of 200,000 vacancies being reported in the country.[3] The nursing shortage is putting additional financial pressure on small rural hospitals as they attempt to compete with larger hospitals in salaries, benefits, and career advancements.

The larger metropolitan hospitals still dictate wage rates and employment packages for health care professionals. Small hospitals are hard pressed to find innovative ways to recruit and retain RNs, pharmacists, physical therapists, and other personnel.

Some rural hospitals have managed to recruit more physicians in the hope that these recruits can fill up empty beds, or at least increase outpatient volume. This approach is logical; however, physician recruitment for certain specialties is still difficult even with the expanding numbers of physicians. The competition for certain specialties is strong; in order to recruit a physician, a hospital must often offer large guarantees and/or large finders' fees. Small hospitals, operating on lower margins and poor cash flows, are often unable to offer these incentives.

An inadequate hospital financial base is showing up in three areas: uncompensated care and bad debts, capital generation, and lack of local patronage.

The amount of uncompensated care (contractual adjustments, bad debts, and charity care) has increased in recent years. In North Carolina between 1980 and 1984, there was a 119.4% increase in uncompensated care.[4] Uncompensated care is a problem everywhere, but for small hospitals operating on smaller margins, it has become a major problem. Contractual adjustments and Hill-Burton obligations set by the federal government often mean little can be done to reduce the level of uncompensated care. Moreover, small hospitals with staff constraints find it difficult to attack bad debts aggressively. Time spent on collections often doesn't pay off.

Raising capital for new plant and equipment is becoming more difficult for small rural hospitals. Although there may be strong public support by the community for the hospital facility, more taxpayers are unwilling to approve general obligation bonds which could increase their taxes. Moreover, many smaller hospitals have not been able to fund depreciation on their building and equipment. Even if depreciation has been funded, the funds are inadequate since medical equipment costs have continued to escalate as new equipment is developed. With a weakened financial base, the hospital must often borrow money at a premium interest rate to raise the funds for equipment purchases. Another possibility is to offer bonds for public sale; but if its financial base is poor, a hospital is unlikely to obtain a favorable bond rating.

Many small community hospitals face a growing problem, as some citizens bypass the local hospital, to seek a major medical center for the "best possible care." Of course, some needed services are available only at larger hospitals, but often the same primary care is available in the community hospital. This bypass erodes the healthcare dollars spent in the local community hospital and tends to leave it underutilized. Major medical centers have taken advantage of this attitude and have developed marketing strategies with heavy media promotion, use of helicopters, and exclusive transfer arrangements with small hospitals.

Lack of political clout is another difficulty that smaller hospitals face. Larger hospitals tend to dominate lobbying efforts because of their superior relationships with the power structure. Many states have hospital associations and political action committees that do a creditable job representing their members; yet, whenever there are differences of opinion within hospitals, the prevailing view normally favors the larger hospitals.

How an alliance can help

Following are some specific ways an alliance can support its members. For facilities without specialized management staff, an alliance can provide marketing, financial, and management engineering from a central source. These services are usually available for purchase by hospitals from a major accounting firm or consulting group, but are generally expensive. The alliance can hire its own staff to support its member hospitals with skilled individuals in these areas.

The marketing staff can provide research, product development, or promotion either for an individual hospital or for the whole alliance, if a joint project is pursed. Financially, a central staff can assist in developing collection methods, computing needs, maximizing reimbursement, or analyzing provided services with reference to financial feasibility.

In fact, a central collection effort can be employed for a more efficient operation and to save paying fees to a collection agency. Management engineering practices can improve efficiency levels and increase productivity through the monitoring of work load standards versus actual volumes. The alliance can also keep staff available for its members to access as needed.

The alliance can develop its own HMO and PPO, or deal more effectively with them when approached. By having combined strength, negotiations can be more favorable for the hospitals and perhaps prevent member hospitals from losing patients outside the alliance.

An alliance can improve the financial operation picture of its members and also aid in capital development. The alliance can develop fund-raising capabilities for its members. It can begin to tap foundations and other philanthropic sources for specific projects. The alliance itself, through the joint balance sheets of its members, might secure funds at a lower interest rate than the member hospitals could obtain individually.

One of the easiest functions for an alliance, and perhaps a good starting point, is joint sponsorship of continuing education services. This can range from pooling resources for a medical library with qualified staff to help in research and database literature searches, to contracting with agencies or individuals to provide educational programs needed by the staff of member hospitals. The alliance can also develop its own educational programs.

Staff recruitment and retention can be addressed by the alliance through a joint promotional program to recruit prospective employees to the area. Ground rules need to be established and procedural guidelines need to be followed when there is a need for the same type of employee at several of the hospitals at the same time. The most difficult positions to fill, such as pharmacists or physical therapists, can be recruited jointly to the area. A solution might be to hire the person as an employee of the alliance, allocating time to members in the alliance as needed. This can work in the clinical area just as with the specialized management staff.

As for political clout, the alliance, now comprising several hospitals with a combined bed count which will rival a larger urban or metropolitan hospital, can exert more influence, both in the legislature and with other organizations with which they must interact. If the alliance encompasses several counties, there is likely more than one elected representative for the area in the capitol. This may provide a block of votes on specific issues. Also, the voice of the alliance is one which will be listened to by the state hospital association, alternative payment firms, and others.

Types of hospital alliances

There are three types of alliances, defined by the extent of alliance operations: 1) loose, 2) formal, or 3) strategic.

A loose alliance consists of any organization operating separately from the individual member hospitals. A corporation may or may not be formed. Little cash

outlay is required. Most of the costs of the alliance are simply shared by splitting the fees through some method such as bed size or size of an individual member's budget relative to the others. Activities might include sponsorship of joint educational programs and shared purchasing of services such as legal, auditing, and consulting. There can be some sharing of services, such as the incineration of hazardous waste or gas autoclaving, which one member of the alliance can provide for the other members.

A formal alliance consists of a separate corporation. Regular guidance is provided by someone, or there may be paid staff. There may be a separate office site away from the hospital members. The alliance attempts to provide services that no one hospital can provide alone or that must be currently purchased from a supplier. Grant applications may be filed for various projects which would provide funding to develop new ventures. Possibilities include imaging services, management engineering, architectural services, biomedical equipment repair, labor pools, home health, or eldercare centers.

A strategic alliance represents a strong commitment on behalf of the membership to provide regional goal-oriented health care. This stage includes all the activities of the loose and formal stages plus additional programs which directly shape the provision of health care for the member hospital's service area. Changing some of the member's missions or long-range goals, such as going from acute beds to long-term care beds, and altering physician referral patterns, may be major strategies used by the alliance. This type of alliance can begin to bargain for benefits from major referral facilities. The alliance may independently develop HMOs or PPOs designed to benefit their communities. New ventures, which just a few years ago were never discussed by hospitals, would be investigated. For example, programs to provide funding for indigent care might be considered. Some problems previously ignored by the small hospital could now be addressed by the alliance.

The strategic stage represents the final stage for an alliance. If an alliance exerted further control over the operation of individual hospitals, then it would become a hospital <u>system</u> with a ruling core. In an alliance, the membership is always the controller; when an alliance is the controller, then it has become a system.

The Formation of an Alliance

Developing a hospital alliance is more difficult when relationships among neighboring hospitals have never been developed, or any that do exist are competitive. A good starting point is to examine all ways the hospitals may already have a connection. If the hospitals are accredited by the Joint Commission on Accreditation of Healthcare Organizations, then they have probably already signed agreements for patient transfers and supplies in times of need. Or perhaps the same radiologist and/or pathologist works for more than one hospital in an area. The same vendors probably supply the hospitals, and the same account representatives may call on all the hospitals.

Convincing the various boards of trustees and the medical staff of the benefits of an alliance may be an initial barrier. Administrators may be required to convince the board and staff that the healthcare arena is changing and that an alliance might offer their hospital an opportunity to better cope with the changes. The idea must be presented that an alliance enables a hospital to manage change, rather than be a victim of change; yet the administrator must not leave the impression that joining an alliance will insulate the hospital from further change.

The level of involvement in an alliance depends entirely on its members. A good alliance for some may be only shared purchasing, whereas for others it may become so integrated that medical staff referral patterns are altered. This level may not arise for years after the alliance has been formed, making it easier to involve board members and physicians if

the alliance has demonstrated success on previous ventures.

In the initial stages, each hospital must take a thorough look at itself as it contemplates joining an alliance. Each hospital must decide what it wants to be in the new healthcare market. There are also legal questions which must be considered by each hospital. The hospital's charter, corporate papers, and/or bylaws may prohibit it from certain activities. Any such problems must be resolved. Another reason for self-analysis is to anticipate the future. The alliance may become involved in long-range strategic planning and suggest that a member hospital must change its mission.

For example, the alliance may determine that a facility would serve the area better as a long-term care facility than as an acute care hospital. Or perhaps a hospital should house a proposed psychiatric program. In such an event, a member could decline or even drop out of the alliance, but that may leave it at a worse disadvantage. Each potential member must consider the possibility of such problems.

There must be a balance between the objectives of each individual hospital and those of the alliance. In some cases there will be conflict. The organizational bylaws of the alliance should provide a procedure to be followed if there is dissatisfaction from a member. For an alliance to achieve its full measure of success, it must be built on established procedures, mutual trust, and cooperation.

The legal environment must be carefully observed to minimize the possibility of violating anti-trust laws. Even in the early stages of discussion, all hospital representatives should be careful not to violate or appear to violate any antitrust laws. This is a delicate matter with alliances, since by its nature an alliance represents a type of collusion, and the U.S. Justice Department is now applying the antitrust laws to non-profit hospitals. The Justice Department in 1988 filed two separate suits to block proposed mergers of non-profit hospitals in Rockford, Illinois, and Roanoke, Virginia.[5]

The preferred way to form an alliance is a tax-exempt non-profit corporation, with the chief operating officers of the member hospitals serving as directors. This structure allows a completely separate entity to control alliance activities and prevents the appearance of collusion on the part of the hospitals. The alliance will have bylaws covering all the usual requirements, such as membership, offices, fees, directors, employees, and financial arrangements. Any additional specific requirements of any participating hospital should be addressed in the Articles of Incorporation and bylaws.

The Western North Carolina Rural Hospital Alliance: A Model

The Western North Carolina Rural Hospital Alliance (WNCRHA) is an example of an alliance formed by six rural hospitals located in a four-county area of Northwestern North Carolina. The mountainous terrain of the area creates a natural bond for the hospitals. The WNCRHA is one of three alliances making up the North Carolina Rural Hospital Coalition (see Map 1), operating under the auspices of the North Carolina Foundation for Alternative Health Programs. The Foundation was awarded a grant from the Robert Wood Johnson Foundation in January 1988 to fund the coalition project.

The western alliance consists of six hospitals with 38 to 141 beds (see Table 1). All are not-for-profit hospitals, with private, county, or city ownership. There is a wide range of services offered. All six hospitals maintain acute care beds. Three are small enough to participate in the swing bed program. One of these also has a 72-bed section for long-term care. Another hospital has a 40-bed psychiatric facility, and two members of the alliance maintain acute care beds only.

The hospitals were brought together in the late 1970s to participate in the North Carolina Area Health Education Center

North Carolina Rural Hospital Coalition

Map 1

Western Alliance
(Geriatric/Rehab Programs)

County	Hospital	City
Avery	Cannon	Banner Elk
Avery	Sloop	Crossnore
Watauga	Blowing Rock	Blowing Rock
Watauga	Watauga Co.	Boone
Wilkes	Wilkes Co.	N. Wilkesboro
Alleghany	Alleghany Co.	Sparta

Central Alliance
(Pilot for SmallEmployer Benefits?)

County	Hospital	City
Stanly	Stanly Memorial	Albemarle
Anson	Anson Co.	Wadesboro
Montgomery	Montgomery Memorial	Troy
Richmond	Richmond Memorial	Rockingham

Eastern Alliance
(Regional Managed Care Program)

County	Hospital	City
Halifax	Halifax Memorial	Roanoke Rapids
Hertford	Roanoke-Chowan	Aheskie
Chowan	Chowan	Edenton
Martin	Martin General	Williamston
Beaufort	Beaufort Co.	Washington

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(AHEC) program, which developed educational and training programs to be administered by the state's four medical schools. The state was divided into regions with a medical school or major teaching facility serving as the resource center. The six hospitals formed a satellite AHEC operation consisting of facilities and staff which was placed at the hospital most centrally located within the area. In the early years, the AHEC program was funded by the state; in later years the hospitals began supporting the project also.

After the formation of the consortium, the hospitals began monthly administrators meetings to discuss current topics and problems that small rural hospitals were facing. These meetings also provided a means for addressing mutual agreements in areas such as transfers, sharing of supplies, and loaning of medical equipment.

The hospitals agreed to secure jointly the services of a well-known legal firm to revise their hospital and medical staff bylaws. The cost was shared equally. If each hospital had obtained legal advice independently, the cost would have been much greater. Later one of the hospitals decided it would enlarge its laundry operation if some of the other hospitals would become laundry customers. Two facilities agreed and after a year the arrangement proved beneficial to all parties involved.

The hospitals realized that they could accomplish more together in some areas

146 146

than separately. Although the hospitals are in a close geographic area and some competition is present, the feeling was that some of the negative aspects of competition could be avoided by forming and participating in an alliance.

Consequently the six hospitals formed the Western North Carolina Rural Hospital Alliance as a tax-exempt non-profit association in November, 1986. The alliance currently operates in the formal stage, with one paid full-time employee. The alliance is in the process of planning several projects and is still determining at what level it should ultimately operate.

The goal of the alliance is to help the member hospitals find and develop cost-saving strategies, obtain capital, and develop a broader base of technical and professional support to form strategies for the future.[6] Central to this goal is the concept of "hospital centrality," with the hospital emphasized as the focal point of health care in the community. While any one hospital is unlikely to offer a full array of services, the alliance would offer access to all needed services via a formal working arrangement with member hospitals and referral arrangements with specialized territory hospitals. The entry point to the required services would remain the community hospital.[7]

The objectives of the alliance are to

- improve the quality of care;
- expand revenue sources;
- meet the health care needs of the surrounding communities;
- negotiate mutually beneficial arrangements with tertiary care providers;
- reorganize alliance relationships as appropriate, examine the efficacy of decreasing facility size, and develop alternative uses of facilities;
- establish a system in which the providers of various services can communicate on clinical, social, financial and

Table 1. Hospitals in the Western North Carolina Rural Hospital Alliance Ranked by Number of Operating Beds.

	Total Operating Beds	Admissions	Census*	Occupancy Rate	Total Expenses (in $1000)	Payroll Expense (in $1000)	Number of Personnel
Watauga County Hospital	141	4571	67	47.5%	9490	4611	308
Wilkes General N. Wilkesboro	133	6572	86	64.7%	11301	6112	343
Blowing Rock Hospital TF	100	486	81	81.0%	NA	NA	NA
Blowing Rock H	28	269	7	NA	NA	NA	NA
Charles A. Cannon, Jr. Memorial Hospital Banner Elk	79	1673	31	39.2%	4002	2017	136
Alleghany County Memorial Hospital Sparta, NC	46	1198	25	54.3%	1947	1030	80
Sloop Memorial Hospital Crossnore, NC	38	1825	23	60.5%	3705	1532	123
Total Beds	465						

Source: AHA Guide 1986

*Census = average number of inpatients receiving care each day in 12-month reporting period.

administrative issues to coordinate optimal care for the patient. This coordinated system of care may require that one or more facilities become the central coordinating agency for medical care, while the other hospitals and/or providers focus on providing clinical and social services.

The Robert Wood Johnson grant will provide financial support to explore the feasibility of providing a low-cost health insurance program to small businesses and providing eldercare in the area served by the alliance. The grant application proposes offering a full range of care services to the elderly, with most provided through the alliance by member hospitals. Also, there is interest in investigating the feasibility of creating a prepaid arrangement for indigent care. This program would require continued funding by the hospitals as well as other sources, such as the state, local governments, and foundations. But the hope is to offer financial support for hospital care to those willing to pay a membership fee if they are able, with the rest of the premium coming from other sources. If it can be demonstrated that in the long run it is better to get partial reimbursement for services provided rather than to have a bad debt, there may be more interest in developing alternative ways of helping indigent patients. If this project is successful, it will benefit hospitals, patients, and governments. Also, there are plans to develop a central personnel pool of specialized staff that the members can access when needed.

The Western North Carolina Rural Hospital Alliance shows that hospitals in a close geographic area can both improve the working relationships among neighboring hospitals and improve the level and quality of the area's heath services. While competition between providers can and should continue, a degree of cooperation can also produce notable benefits.

Notes

1. Health Week, December 23, 1987, p. 5.

2. "North Carolina Hospital Facts," The North Carolina Hospital Association, 1986.

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NETWORKING FOR THE VULNERABLE IN APPALACHIA: HEALTH SERVICES FOR THE RURAL ELDERLY

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Abstract

Delivering health services to the rural elderly in Central Appalachia has always been a difficult undertaking. This paper discusses the reasons that professional health care providers have not worked with indigenous, informal care-givers as viable members of the health care team. A model is discussed that was implemented in Tennessee's Morgan and Scott Counties, utilizing rural churches for locating, recruiting, training, and supporting local helpers to serve the elderly. Pertinent issues are discussed in relation to this experience, with recommendations for professional health service providers.

Rural communities in Tennessee's Morgan and Scott counties have traditionally suffered from inadequate federal, state, and local funding for health services (MacDonald, 1988). At the same time, rural residents value independence and tend to prefer to "take care of their own," rather than rely on "outsiders" and formal health care service delivery systems (Bedics and Doelker, 1983). This attitude of self-reliance can be developed and utilized in addressing the problems of caring for the rural elderly.

Rural health care workers and their respective agencies who serve the rural communities often ignore the potential for using indigenous "natural helpers" in other than sporadic, crisis-oriented, short term ways (Clark et al., 1980). Public health and mental health workers who serve the rural elderly from distant offices often find their resources of time and personal energy inadequate to meet client needs (Bedics and Doelker, 1983).

Many rural agencies operated by service personnel who are educated in schools in urban settings are ill-prepared to transpose urban style services and urban methods to rural settings (Goltermann and Bedics, 1980). They are frequently uninformed regarding informal service networks and indigenous care-givers. In this time of decreased spending in health care and the subsequent loss or reduction of already inadequate funding for rural health care, agency workers and administrators must consider new ways of providing services to increasingly vulnerable populations (Kraut, 1986).

We know now that in the 1990s one of the most critical issues in our culture will be the care needed for elderly relatives. By the year 2000, the number of people over eighty will double in the United States. Already in 1988, 30% of the U.S. workforce has the responsibility of caring for an elderly relative (Morgan, 1987). In Appalachia, many of these vulnerable elderly are located in rural areas, while their children live in urban settings, often a long distance from their parents or grandparents.

One important resource frequently underutilized by formal health care agencies in locating and serving these elderly is the rural church (Kivett, 1986). Why is the church considered by many health workers as a last resort rather than a primary resource for formal health service delivery systems? What are the fears and biases about the church that influence organizational and individual decision making?

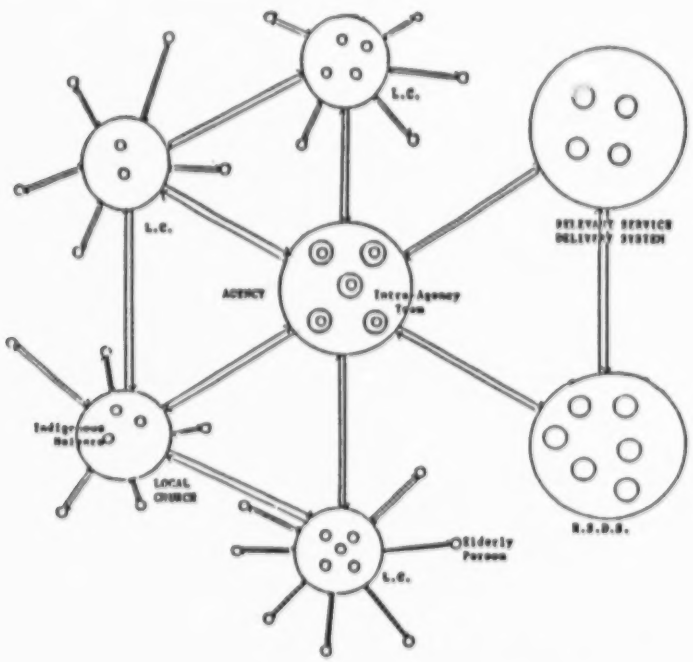
In rural Appalachia many church congregations are composed of predominantly elderly persons. These congregations can be sources for locating, recruiting, training and supporting indigenous helpers to serve the vulnerable elderly in rural areas (MacDonald and Halseth, 1987). A relatively simple model was conceived and

implemented in Morgan and Scott counties in the 1970s by the Morgan/Scott Project for Cooperative Christian Concerns (see Figure 1 below). It was postulated that the problems in locating and providing services to the elderly could be greatly reduced by using local, indigenous care-givers in church congregations. Local congregations were linked with one another by professional personnel from the health clinics in both counties. The personnel provided group training opportunities for the identified care-givers in the areas of health screening and referral.

The groups organized by the personnel met in different churches on a rotating basis and continued to operate after the initial training as support groups for care-givers. This support networking proved advantageous for the care-givers and the elderly, who were in need of continual monitoring and evaluation. It also assured greater utilization of available health services by the population.

Although the model is simple, several issues must be considered when planning to implement it.

Figure 1



I D E A L C O N F I G U R A T I O N

Key:

⟷ = Strong Reciprocal Relationship
⟶ = Strong Uni-directional Relationship
- - - - → = Tenuous Relationship
++++ = Conflictual Relationship

Issues for Consideration:

1. Entry
2. Pay-off
3. Cost
4. Obstacles
5. Unique considerations

150

1. **Entry**: How can a formal health service organization gain entry into the power structure of the local church in order to receive sanction and legitimation from the local church hierarchy?

2. **Pay-off**: What are the potential benefits for the health care agency? What are the potential benefits for the local church? What are the potential benefits for other relevant systems?

3. **Costs**: What are the potential costs for the health care agency? What are the potential costs for the local church? What are the potential costs for other relevant systems?

4. **Obstacles**: What are the potential internal agency obstacles and external environmental obstacles to implementation?

5. **Unique considerations**: What are the issues unique to each setting?

These broadly stated issues are addressed below in relation to the Morgan-Scott experience (see Figure 2).

1. **Entry**: In the case of the Morgan-Scott Project (MSP), entry was initiated through its board of directors. This project was conceived by local church leaders from "mainline" denominations, i.e., the United Methodist Church, the Presbyterian Church (USA), and the United Church of Christ. The health clinics, in turn, were strongly supported by the project board because of the desperate need for adequate health care in a two-county area with two practicing family physicians who, in this case, were active church members in two local congregations. Church sanction was rather easily gained because of the "direct line" enjoyed via the MSP board. In situations where such a board does not exist, health clinics may choose to work through the local ministerial associations. These associations usually meet at least once a month, offering support and problem solving opportunities for rural ministers. As a last point of entry, individual ministers may be contacted and personally visited by clinic representatives.

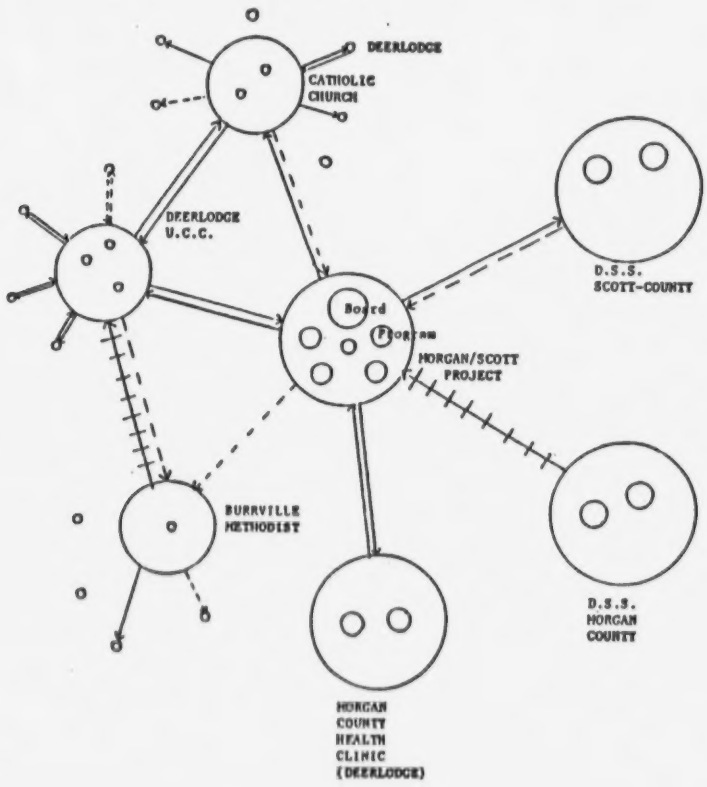
The critical issue in all situations is inclusiveness. Ministers must feel that their input is valued and that they can participate as a "team member." Clergy and church leaders may be asked to serve on clinic boards as well. The power of the church and the importance that is placed on it by many of the rural elderly makes it not only a natural source of local sanction and legitimation for health care clinics, but also a tremendous source of dedicated volunteers for the project.

2. **Pay-off**: The benefits for the health care clinics involved were obvious. By networking with indigenous care-givers from local congregations, clinics were able to serve and indirectly monitor a larger segment of the vulnerable community. By receiving local sanction to operate, some local residents were more likely to utilize health services often provided by "outsider" health care professionals.

The benefits for the local churches and their members were many. A health care network gave local care-givers in different congregations an opportunity to know one another and gain a sense of community. Many indigenous care-givers feel isolated and alone in their efforts to respond to the needs of their elderly friends. By meeting regularly on a rotating basis in different churches, some congregations began to feel revitalized and focused on an important aspect of local mission. Work loads and individual cases were shared. New cases were identified by team members. Individual problems or concerns were expressed and often resolved with team input. Some congregations enjoyed an increase in membership and attendance.

3. **Costs**: There are inevitably costs to health care agencies when a networking plan in implemented. It is essential that clinic or agency personnel assume an active role in the training and coordinating of local care-givers, particularly during the initial stage of development and implementation. In organizations that already have a limited staff, this additional assignment can be stressful and costly. Coordinators of the networking program must spend large amounts of time on the road visiting

Figure 2



MORGAN/SCOTT PROJECT CONFIGURATION

ISSUES FOR CONSIDERATION:

1) Entry
a. MSP Board of Directors. The Board of Directors consisted of congregational representatives and ministers.

2) Pay-off
a. The pay-off was most evident in the DeerLodge Community. The Morgan/Scott Project originated in DeerLodge, and both DeerLodge churches had a number of elderly in need of services. Both churches were active in community affairs and enjoyed fellowship activities. The Burrville Church has a dwindling congregation, mostly elderly, that looked guardedly at the DeerLodge-MSP affiliation.
b. The Morgan County Health Clinic was relatively new and eager to serve new clients. The physicians and nurses were completing intern requirements and were creative in providing services.
c. Department of Social Services, Scott County, would accept referrals, but give little or no follow-up information. Also would occasionally refer clients to MSP for emergency services.
d. D.S.S., Morgan County, refused to work with MSP. Considered it a competitor and radical organization.

3) Cost
a. Little material cost to agency because of its volunteer staff. Turnover of volunteers often led to network breakdown. Always a shortage of volunteer staff to maintain active network.

4) Obstacles
a. Continued volunteer staff turnover
b. Delayed service delivery
c. Local hostility toward MSP
d. Lack of adequate outreach by MSP staff

5) Unique considerations
a. MSP historically had alienated many local residents and churches because of controversial actions taken by its directors that were perceived by the larger community as an infringement on local mores and informal rules.

individuals and prospective congregations. Much of their work must be performed in the evenings and perhaps weekends when church members gather for church functions. Considerable time must also be spent on eligibility and reimbursement concerns. Indigenous care-givers must grasp at some level the intricacies of medicaid and medicare and their role as helpers in the application process. Overutilization, rather than underutilization, can become a concern. The ongoing problem of team coordination and individual cooperation, as well as all the "people-focused" activities that accompany such efforts, can tax even the most well meaning and dedicated health professionals.

The cost to the churches and congregational care-givers is the loss of complete autonomy and freedom regarding who one helps. Accountability to the members of the network means relinquishing biases about who should receive health services, therefore thrusting church members toward the inclusive ideals of ecumenism.

4. **Obstacles:** Ecumenism and inclusiveness are key concepts in any networking strategy. Some congregations or denominations do not embrace inclusive values. When identifying potential churches as networking partners, it is important for health care coordinators to be informed of denominational attitudes towards the larger community of faith.

Agency personnel biases toward including volunteers as team members with equal decision-making powers can determine the success or failure of a network. Some personnel may hold attitudes about the church and Christians or the rural people of Appalachia in general that create a negative mindset against working with and among local residents. To counter such biases, it is paramount that agency personnel receive a comprehensive historical and current orientation to the political economy of the region. Administrators must be keenly aware of the importance of "outsider" understanding and acceptance of the social norms or rules of the region. For example, reciprocity in service delivery is very important. Service recipients must be allowed to "give" in their own way for services rendered. Spending time to talk and perhaps partaking of a meal can be simple "door openers." Rural people take the time to listen to others and value personal relationships. Urban-trained health care professionals may be unaccustomed to the different orientation of time for rural residents. Training indigenous care-givers to perform basic health screening tasks and utilize health care professionals appropriately requires patience, sensitivity, and considerable interpersonal skills.

5. **Unique considerations:** Every setting will have unique issues that must be addressed to maximize the success of the networking approach. In the case of Morgan and Scott counties, the project's relationships with the Department of Social Services and Health Departments were of critical importance. Since the health clinics were initiated and affiliated with MSP, how these formal organizations perceived the project determined their endorsement or rejection of the health clinics. Some formal service delivery systems perceived MSP as a deviant, renegade organization attempting to undermine their more formalized and bureaucratic service delivery. Subsequently, these systems would not refer to or work with the clinics in procuring needed social services for clients. As a result of a much needed conciliatory effort on the part of the clinic personnel, some relationships with formal service delivery systems were enhanced.

Feuding among congregations was another problem that thwarted networking efforts. Some local churches simply would not interact and work with other churches in the area. Considerable time was spent attempting to heal "old wounds" and soothe hurt egos of some key church members. Some churches worked well together; others were left to themselves when initial efforts proved fruitless.

With the limited personnel that many health agencies have, decisions must be made regarding the time and energy spent

on obtaining the sanction of important social systems. An ecological assessment of the minimal requirements to insure networking success is essential.

In the 1980s, the health departments in Morgan and Scott counties assumed complete responsibility for the operation of the health clinics initiated by the Morgan/Scott Project. One result was the virtual abandonment of the networking concept and a return to a less flexible and less inclusive system of rural health care. The informal care-givers continue to play a vital role in the lives of the vulnerable elderly in the area, but are no longer a recognized part of a comprehensive health care system.

This paper calls for a return to the networking concept and the fuller utilization of the already operating, but usually disorganized and sporadic, informal care systems that exist in rural settings. If indigenous, informal care-givers are involved as team members, our rural elderly and other vulnerable populations can receive health care when it is needed. The crisis in health care is upon us. Let us join hands with our neighbors and overcome our prejudices and biases, to the betterment of inclusive rural health care.•

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ORAL HEALTH CARE STRATEGIES FOR FAMILY CAREGIVERS OF DEPENDENT ELDERLY IN APPALACHIA

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Abstract

Family caregivers in rural communities of northern West Virginia and northeastern Tennessee, as well as urban families in the Bluegrass region of Kentucky, participate in workshops to learn mouth screening as well as daily mouth care for homebound impaired elderly with arthritis, stroke, Parkinson's disease, or Alzheimer's disease. Retired elderly volunteers aided in materials development and now serve as health educators.

Appalachia's elderly population has been described by Rowles in 1986 as "objectively" worse off than elderly people in other areas of the United States, based on several key indicators of well-being: poverty levels, public transportation disability, and access to the telephone.[1] He noted that given the relatively low numbers and percentages of the population that are elderly and by the high degree of geographical dispersion, "the provision of appropriate supportive intervention is extremely difficult, as population thresholds are frequently too low to economically justify providing a service and the remote location of many of those in need makes access extremely costly."

Data from a 1987 statewide survey of oral health in Kentucky showed that edentulism, or loss of all natural teeth, was higher for Kentucky than the national rate of 8.7%. The rate for the Appalachian region of Kentucky was 20.9%, for the state, 14.5%, and for central Kentucky, 12.3%. In Appalachian Kentucky, the edentulism rate for ages 65-74 was 56.5%, and for the 75-plus group, 60%.[2]

Oral health is important to the quality of life. A healthy mouth can enhance and maintain the self-esteem of an older person. This project aimed, by promoting better oral health, to improve the quality of life of dependent homebound elderly people in Appalachia. Further goals were to demonstrate a program to reach and effectively serve family caregivers of dependent older individuals; develop innovative educational methods on oral health for the functionally dependent elderly; and utilize retired older adults in oral health care promotion and education.

An important emerging issue for policy makers and researchers is the role of informal caregivers (e.g., family and friends) in maintaining the dependent person at home, thus keeping the older person in familiar surroundings and reducing costs of maintaining the older adult in an institution. Providing additional support for informal caregivers to cope better with long-term care at home for a dependent older adult is thus desirable. Stone and co-workers reported that, based on the 1982 National Long-Term Care Survey, there were 2.2 million caregivers aged 14 or older who provide unpaid assistance to 1.6 million non-institutionalized disabled elderly people with one or more limitations in activities of daily living.[3] One fifth of the care recipients were 85 years or older. Stone notes the data revealed that roughly one-third of the caregivers were over age 65, a finding which supports previous research that the informal care system is partially composed of the young-old caring for the old-old.

Our target population for this project was homebound Appalachian older adults with one of the following chronic disabling conditions: Alzheimer's disease, arthritis, Parkinson's disease, or stroke. The disabled older person's oral health is in

jeopardy for two reasons. First, older people may not be able to do daily mouth care procedures for themselves. And secondly, the dependent older person may not be able to detect changes, pathologic or not, which may occur. And older people, even if aware of changes or of pain, may be limited in their ability to report such change.

Good oral health promotion efforts for this group of dependent elderly people therefore include daily care and a periodic inspection or mouth screening examination. We felt the family caregiver would be the person most willing and able to assist with and do these procedures for the older person. We therefore decided to use a workshop format to teach the family caregiver the knowledge and skills both to carry out daily care procedures and to do a periodic intra-oral examination in a systematic fashion. To this end, we formulated the following objectives:

- Teach family caregivers how to do a monthly mouth screening to detect oral health problems.
- Conduct workshops for family caregivers.
- Develop videotapes and printed modules for the special oral health concerns of the target population.
- Recruit and train retired dentists as Volunteer Health Educators.
- Compare characteristics of urban and Appalachian rural caregivers and care receivers.

The uniqueness of the workshop lies in teaching the family caregiver to carry out not only daily mouth care procedures, but also a screening oral examination, which we call a monthly mouth screening. Entitled "Keeping The Older Person's Mouth Healthy," the workshop lasts 2½ hours; it includes both a videotape and interaction with a live volunteer health educator.

Products developed especially for the workshop were videotapes, a "Caregiver's Handbook," a "Guide to Mouth Screening," and a "Health Educator's Handbook."

There are four versions of a 60-minute videotape, one for each of the specific disease states: Alzheimer's disease, arthritis, Parkinson's disease, and stroke. The difference among the tapes is the second segment, which specifically addresses mouth care in each of the disease states. The videotapes provide the primary instruction in concepts. Each tape includes the following programs:

Program 1: **"Why Mouth Care is Important"** -- The videotape presents the causes of common mouth problems and how the caregiver can help prevent these problems.

Program 2: **"Alzheimer's Disease and Mouth Care"** or **"Arthritis and Mouth Care"** or **"Parkinson's Disease and Mouth Care"** or **"Stroke and Mouth Care"** -- This video shows specific ways the caregivers can deal with some of the problems in each of the disease states that may affect mouth care. Suggestions are also given for the use of adaptive devices which the older person may use for mouth care.

Program 3: **"How to Clean the Mouth for the Person With Natural Teeth"** -- This program is used if some of the caregivers in the audience care for an older person with natural teeth. Correct procedures are shown for brushing and flossing the older person's teeth.

Program 4: **"How to Clean the Mouth for the Person with Full or Partial Dentures"** This program is used if some of the caregivers in the audience care for an older person with dentures. Correct procedures are shown for cleaning the older person's dentures and mouth; how to remove dentures from the mouth and how to replace them.

Program 5: **"Common Mouth Problems and When To Seek Help"** -- The videotape shows how to distinguish between the healthy mouth and mouth changes, conditions, or problems. The caregiver learns which problems are serious enough to be reported to the dentist.

Program 6: **"How to do a Mouth Screening"** -- The procedures for mouth screening

are presented in an orderly step-by-step sequence. Participants learn how to use the Mouth Screening Guide. This videotape includes an interactive component. During the program, the participants work with the instructor in the videotape to recognize mouth changes and determine which ones are serious.

The "Caregiver's Handbook" is intended primarily as a resource for the caregiver. Written for the lay person in basic language, it avoids jargon. There are four editions of the "Caregiver's Handbook," one for each of the four disease states. Each includes seven sections. The first six sections correspond to the six videotape programs. The seventh section, "Resources," provides references for additional readings, products that may be used, and other information which may be helpful for the caregiver.

The "Mouth Screening Guide" has been designed to assist the caregiver during the mouth screening procedure. The caregiver received a copy of the Guide to take home. The Guide includes all the information needed to complete a mouth screening.

The "Health Educator's Handbook" is a manual designed to take the Volunteer Health Educator step-by-step in conducting the 2½-hour workshop and interacting with participants.

On-site practice exercises for cleaning the teeth or dentures and for mouth screening are included as a part of the instructional design, to reinforce the videotape demonstration. The Health Educator also demonstrates these procedures and responds to participants' questions. The Workshop Presentation Plan in the "Health Educator's Handbook" provides step-by-step instructions for these demonstrations.

Workshop participants do not practice the mouth screening exercise on each other. However, the instructional design provides for a self-screening exercise, which allows the participants to practice the techniques on themselves. The caregiver is taught to look in the mouth in a systematic fashion, using materials available at home, such as a flashlight, a spoon handle, and a washcloth. Once participants complete the video activity and the self-screening procedure, they should be prepared to do a mouth screening on the person in their care.

The idea of using older adult retired people in materials development was realized by having such people narrate and demonstrate both procedures and situations in the videotape programs; they also reviewed and critiqued the written scripts and the "Caregiver's Handbook" modules. Retired people, chiefly retired dentists, have been recruited as Volunteer Health Educators and have participated in a one-day workshop to prepare as workshop leaders. These retired professionals conduct the Workshops using the "Health Educator's Handbook."

To meet the objective of comparing Appalachian to non-Appalachian urban areas, two Appalachian areas were selected: in West Virginia, the Region Six Area Agency on Aging where West Virginia University is located, consisting of six counties (Doddridge, Harrison, Marion, Monongalia, Preston and Taylor); and in upper east Tennessee, the First Tennessee Area Agency on Aging where East Tennessee State University is located, composed of eight counties (Carter, Greene, Hawkins, Hancock, Johnson, Sullivan, Unicoi, and Washington). Lexington, Kentucky, is the non-Appalachian urban site.

The phase of producing materials has been completed and we have now moved into the phase of presenting workshops.

Efforts to recruit family caregivers suggest that caregivers, usually older people, represent a spectrum of attitudes concerning oral health. At one end are those with an appreciation for good oral health and practice what are considered good oral health behaviors. At the other end of the spectrum are those individuals with little or no appreciation for dental and oral health, a limited practice of

appropriate daily mouth care procedures, and a history of seeking only episodic or emergency dental care.

Those caregivers with the most appreciation for oral health see the workshop as a means to learn how to cope with the mouth problems the older person may have because of a chronic disabling condition. Those at the opposite end of the spectrum are not as receptive to being enrolled in a workshop. Thus we also have to look for others who have contact with and give support to dependent homebound elderly in Appalachia. These people include Home Health Aides as well as certain older people who provide various levels of assistance to friends and neighbors. This latter older adult population has been referred to by Patterson as "older rural natural helpers."[4] We will seek to enlist the aid of both groups in continuing efforts at oral health promotion for dependent homebound elderly in Appalachia.■

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THE KENTUCKY AREA HEALTH EDUCATION CENTER PROGRAM: UNIVERSITIES AND COMMUNITIES WORKING TOGETHER TO MEET KENTUCKY'S HEALTH MANPOWER NEEDS

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Issues of imbalance in the number and specialty of physicians and the supply of other health professionals have been important areas of health policy concern for decades, and particularly so in the last 20 years. Nationwide, both state and federal programs have been developed to address these issues.

Kentucky, a predominantly rural state, has an ongoing problem attracting and retaining doctors, dentists, pharmacists, and other health professionals in rural areas throughout the state. As in other states, a number of programs focus activities on improving health manpower distribution in rural areas. The Kentucky Area Health Education Program (AHEC), a collaborative effort between the University of Kentucky and the University of Louisville, is unique among these programs.

This Kentucky AHEC Program, the most recent of a long series of initiatives in the state to address rural health needs, has a history dating back to the 1970s. The Area Health Education System, or (AHES) program, upon which AHEC was later built, provided training experiences for students in rural parts of the state. This program was developed in response to a statement made by then-Governor Wendell Ford, who wanted to see "some type of linkup with technical and clinical education opportunities at the local level."

The primary thrust of AHES was for University faculty to develop educational opportunities and send students to rural locations to gain some training. Regional coordinators were named to help with the logistics of these rotations. One problem with this approach was that it was essentially university-based and did not encourage much input from the region.

Today's AHEC program also focuses on providing a variety of rural education and training experiences for students from the Colleges of Medicine, Nursing, Pharmacy, Dentistry, and Allied Health Professions. These education and training experiences are designed to give students a positive view of life and work in Kentucky's rural communities, thereby laying the foundation for their future consideration as choices for career location.

The major difference between the AHES model and the AHEC model is that, although based in the academic setting, the activities of the Kentucky AHEC Program are carried out through six regional Area Health Education Centers. These regional centers have established close ties between the academic institutions and rural communities, representing a network of community health facilities, practicing professionals, and programs. Each one of these regional centers serves a defined geographic area and provides a forum for cooperative planning for community-based educational activities and community services in the health professions, to enrich and enhance the climate for professional practice. In addition, these centers work to develop health careers interest among high school and pre-high school students, thus beginning to address the serious shortfall in applicants to health professions schools in Kentucky.

In discussing programs based in academic settings, the most common approach is to describe research methodology and findings, using carefully prescribed academic terminology throughout. However, this paper will use a less common approach and look at the Area Health Education Center Program (AHEC) in regard to how it is addressing some of our

state's problems. This is a reasonable approach because of the basic mission of the program, which is to improve the health care of rural Kentuckians through a variety of initiatives. In the development of this approach, we examined four of Kentucky's problems and looked at how the Program addresses these problems, either directly or indirectly.

* * *

1. KENTUCKY'S RURAL AREAS SUFFER FROM INADEQUATE PROVISION OF HEALTH CARE BECAUSE OF HEALTH MANPOWER SHORTAGES.

This section of our paper will focus on some of the major issues relating to health manpower shortages and discuss AHEC Program activities which are directed toward improving the geographic distribution and retention of health professionals in Kentucky.

The main thrust of the Kentucky AHEC Program has been the careful evaluation of health manpower issues as a basis for program planning and development. A superficial review of health manpower data from 1978 - 1987 would indicate that Kentucky is moving forward in addressing health manpower issues. For example, during this time period, there was a 35% increase in the number of physicians in the state. Data by specialty in Kentucky, available beginning in 1983, reflect a 28% increase in primary care physicians.

Nationally, a ratio of one primary care physician for every 1500-2500 people is generally considered adequate. Statewide statistics imply that Kentucky has sufficient numbers of primary care physicians with a statewide ratio of 1:1216 and that the state is making significant progress in meeting the primary care health needs of Kentuckians. However, a closer look at geographic distribution, retention patterns, population trends, and socioeconomic factors indicates that health manpower shortages continue to be an area of critical need. Some of the factors affecting this need in rural areas of our state are the following:

There is an increasing elderly population in rural Kentucky.

As traditional employment opportunities diminish (in agriculture and coal mining), stress and mental illness are becoming more prevalent among rural people.

Kentucky ranks 41st among states per capita income.

Kentucky ranks 36th in the nation in percentage of high school graduates.

There is a growing number of children living in poverty in Kentucky.

There is a high incidence of teenage pregnancy.

There is a high incidence of chronic illness (diabetes, hypertension, lung disease).

Late prenatal care and maternal/infant mortality and morbidity continue to be problems in rural areas of Kentucky.

The rate for congenital anomalies is high in the eastern part of the state.

Death and disablement as a result of accidents are significantly higher in rural areas of the state.

There is an increasing incidence of cervical, breast, and lung cancer in rural areas of the state.

Fifty-three counties, or 44% of Kentucky's counties, are designated as medically underserved using the federal definition, which is computed by utilizing poverty levels, percentage of elderly population, birth rates, and physician data. Also, simple physician/population ratios do not tell the story for primary care at the county level. Individual county ratios do not distinguish between physicians working a full 40-hour week or more, and physicians who may, be semi-

retired or working half time. Nor do the records show the proportion of a physician's time given in a particular county, in cases where the physician practices in more than one county.

In addition to widespread medical personnel shortages, geographic maldistribution of specialists is a growing concern. The geographic distribution of physicians in Kentucky follows national trends, parallelling areas of high population and high per capita income. The most recent figures show that while Jefferson and Fayette counties together contain only 24% of the state population, they have half of all physicians and over half of all primary care physicians licensed in Kentucky. The disparity between physician/population ratios in areas of high population and those in low population areas continues to increase. In Kentucky, this is a particularly significant area to be addressed. In order to support the regional medical centers which have been established in rural areas of the state, specialists must be recruited to provide the wide range of services necessary for secondary level care.

In considering health manpower shortages in Kentucky, we cannot limit the discussion to physicians alone. In Kentucky, there are acute shortages of other health professionals affecting the quality of health care in rural areas. Statewide, there are severe shortages of nurses, physical therapists, medical technologists, pharmacists, and hospital administrators. Also, physician assistants, nurse practitioners, and nurse midwives are under-utilized.

The University of Kentucky Medical Center AHEC Program has developed activities in five areas to affect these identified health manpower shortages.

a. Educate and train health professions students in rural areas.

Efforts to stimulate an increase in the number of student rural educational experiences in the colleges of allied health professions, dentistry, medicine, nursing, and pharmacy have been successful. The regional Centers have played a vital role in increasing interest in off-site experiences, both with students and faculty. They have been key in identifying new sites and preceptors and have provided a strong support system to students on rotation and to faculty, facilitating a healthy exchange and increased interaction between university medical faculty and off-site preceptors.

The following page provides data regarding the type and numbers of students participating in the AHEC Program over a three-year period. The average duration of training for these students is a minimum of four weeks.

It is easy to see that a healthy increase in the numbers of student rotations is occurring. Also, these rotations reflect a much higher distribution of rotations and utilization of a wider diversity of rural sites. Many of the rotations represent interdisciplinary experiences, permitting students and residents to broaden their perspectives of the health care delivery system in rural Kentucky.

The careful evaluation of training sites since the beginning of the program has strengthened the off-site clinical model and has enhanced the credibility of rural experiences for students and residents.

b. Recruit students from underserved areas of the state into the health professions.

Data compiled in 1985 by the Kentucky Council on Higher Education indicate serious imbalances in application and acceptance rates of students coming from underserved areas of the state and emphasize the bleak outlook for adequate health care delivery in the Commonwealth's medically underserved counties.

Efforts are underway to improve these figures. The regional centers have developed and presented health careers programs in high schools to students to provide information which will encourage them to consider the health professions as

KENTUCKY AHEC PROGRAM

Number of Student/Resident Rotations by Discipline

Discipline	1985-86	1986-87	1987-88
Medecine			
Undergraduate	160	245	303
Graduate	82	97	76
Dentistry	67	65	67
Nursing			
Undergraduate	26	44	48
Graduate	12	2	9
Pharmacy	77	87	124
Allied Health Professions			
Community Health Administration	14	27	35
Dietetics/Nutrition	11	9	7
Physical Therapy	92	109	122
Physical Therapy Assistants	16	14	34
Physician Assistants	57	77	114
Medical Technology	27	23	22
Dental Hygiene	14	14	7
Radiologic Technology	0	17	3
Cyto Technology			3
TOTALS	655	830	974

career opportunities. The AHEC Program also works closely with the Professional Education Preparation Program (PEPP), through which students from rural areas with an interest in the health professions are identified and tracked through a continuum of activities designed to enhance recruitment and retention.

c. Develop off-campus courses as needed.

Practicing health professionals in rural communities have little opportunity to seek advanced degrees in their professions. This is particularly true in the nursing profession where many nurses in rural areas hold an Associate Degree. The AHEC Program is working with the Colleges at the University of Kentucky Medical Center to determine the feasibility of developing off-campus courses geared to the needs of rural health professionals.

d. Cooperate with state agencies and associations to address health manpower needs.

The AHEC staff has worked with the Kentucky Hospital Association and the academic institutions to look at ways of resolving the physical therapy manpower shortages in the state. As a result, the College of Allied Health Professions has increased by 20 the number of entering physical therapy students, beginning in the fall of 1988.

The Program has also begun to work with the Physician Placement Service in Frankfort and other agencies to consider cooperative efforts for addressing health manpower problems in the state.

e. Develop accurate health manpower needs assessments.

Accurate data regarding some of the health professions have not been compiled in Kentucky. This has become a major area of work for regional AHEC centers.

Retention of health professionals in rural areas is another aspect of the problem of health manpower shortages. In the planning and development of the Kentucky AHEC Program, the experiences of successful AHEC Programs in other states have been evaluated and specific activities have been designed for development by the regional centers, with emphasis on three areas: providing high quality, accessible continuing education programming, developing regional library learning resource centers, and expanding the role of the medical preceptor.

2. KENTUCKY'S RURAL PEOPLE DO NOT HAVE SUFFICIENT ACCESS TO COMMUNITY ACTIVITIES FOCUSING ON HEALTH PROMOTION AND DISEASE PREVENTION.

The high incidence of Kentucky's major health problems, such as teenage pregnancy and certain types of cancer and diabetes, is partly a result of a general lack of basic health care information.

The following are examples of specific health information needs and of activities being developed to address them:

1. Kentucky's school children need to be taught the basic principles of good health and how to prevent illness. Many schools in rural areas are unable to provide adequate health education programming for students. The AHECs are now working with the public schools to provide this service.

2. The increasing number of older Kentuckians has brought about the need for more health services, for an increased number of health professionals trained in the care of the elderly patient, and for broader information services which will enable older people to enjoy a better quality of life. Rural areas of the state experience more difficulty meeting these needs. The regional centers are working to meet some of these needs of the elderly through special programming, at both the lay and professional levels.

3. Kentucky's women living in rural areas need to become more aware of the importance of regular check-ups. The regional centers sponsor women's health care conferences on important issues such as prenatal care and cancer prevention.

One might look at a program such as AHEC and question the need for its involvement in health promotion/disease prevention activities. However, the involvement is a natural one, enabling the program to accomplish several goals while providing a much needed service in rural areas. The interaction between practicing health professionals and faculty from the University of Kentucky Medical Center during the planning and development of these activities is mutually advantageous; it alleviates some of the professional isolation felt by professionals in rural areas, and it enables academic faculty to gain a better understanding of rural health problems and needs.

Another important aspect of these activities is community involvement. As communities become more aware of the value of health promotion and disease prevention, they develop more of their own community-sponsored programs.

Health promotion/disease prevention activities provide educational benefits for students as well. Students on rotation in rural sites have the opportunity to work in the planning and development of such activities, which broadens their perspective on providing total health care.

3. TRADITIONAL JOBS FOR RURAL KENTUCKIANS ARE DISAPPEARING.

Young people growing up in rural communities need to have information on new ways of earning a living and contributing to their communities. The Kentucky AHEC Program is addressing this need through health careers programs in high schools and junior colleges. These programs, aiming to recruit more young people from rural areas into the various health professions, provide new ways for Kentucky's youth to look at their futures.

4. KENTUCKY'S RURAL COMMUNITIES ARE VIEWED AS LACKING ADEQUATE RESOURCES TO ATTRACT BUSINESSES AND PROFESSIONALS.

The regional Centers provide a wide variety of activities designed to improve the quality of life of the rural communities and surrounding regions where they are located. The wide range of educational services and programs they offer can only serve to enhance the prestige of the rural areas, thereby contributing to a more favorable environment.

In summary, the AHEC Program is a comprehensive program which is addressing realistically some of the health care problems of the state. By developing resources and educational activities in rural communities, the AHEC Program is becoming an essential factor in establishing a better environment for professional health care practice.▪

CHILDREN: THE VULNERABLE POPULATION OF APPALACHIA

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Abstract

The infant mortality rate is no longer a relevant health care index for Kentucky Appalachia. Since 1962, this embarrassing statistic has been reduced to a lower rate than for most of the country. Yet our health care lags behind. Access to specialized medical care is the pressing problem. Diabetes mellitus in young children is used as an example. A seven-year experience with ongoing outreach clinics showed measurable improvements int the quality of health and lives of these children, along with a demonstrated cost effectiveness. The establishment of outreach clinics to deliver specialized medical services for other diseases and problems is proposed as an interim solution.

This report is largely experiential. I focus on a small region in which I have had my most recent experience, a 21-county area in east Kentucky where we have been holding outreach clinics for children with diabetes mellitus since 1982.

Figure 1 on the next page shows the political boundaries of Appalachia extending from Mississippi to New York State. Even though I grew up in east Tennessee, I have always felt that the heart of Appalachia was in southeast Kentucky, the area where I have been working. The area comprises three health and development districts (Big Sandy, Kentucky River, and Cumberland Valley), each defined by the watershed of its major tributary.

The latest population figures show that about 15% of the people of Kentucky live in these valleys and that children make up about 30% of the population (see Figure 2). The children make up a larger percentage of the population than in the rest of Kentucky or the United States as a whole. In a way, the valleys of eastern Kentucky are valleys of children and old people. Many of the middle-aged people have migrated to other areas, though they maintain their Kentucky connections.

Figure 2

POPULATION 1986

	Total	% over 18 Years
Big Sandy (5 counties)	191,421	29.9
Kentucky River (8 counties)	140,185	30.3
Cumberland Valley (8 counties)	239,584	29.1
Kentucky (120 counties)	3,725,697	26.9
USA (50 states)	242,742,000*	26.1

*Includes US Armed Forces

Figure 3

FERTILITY RATES 1987

Births per 1000 females aged 15-44

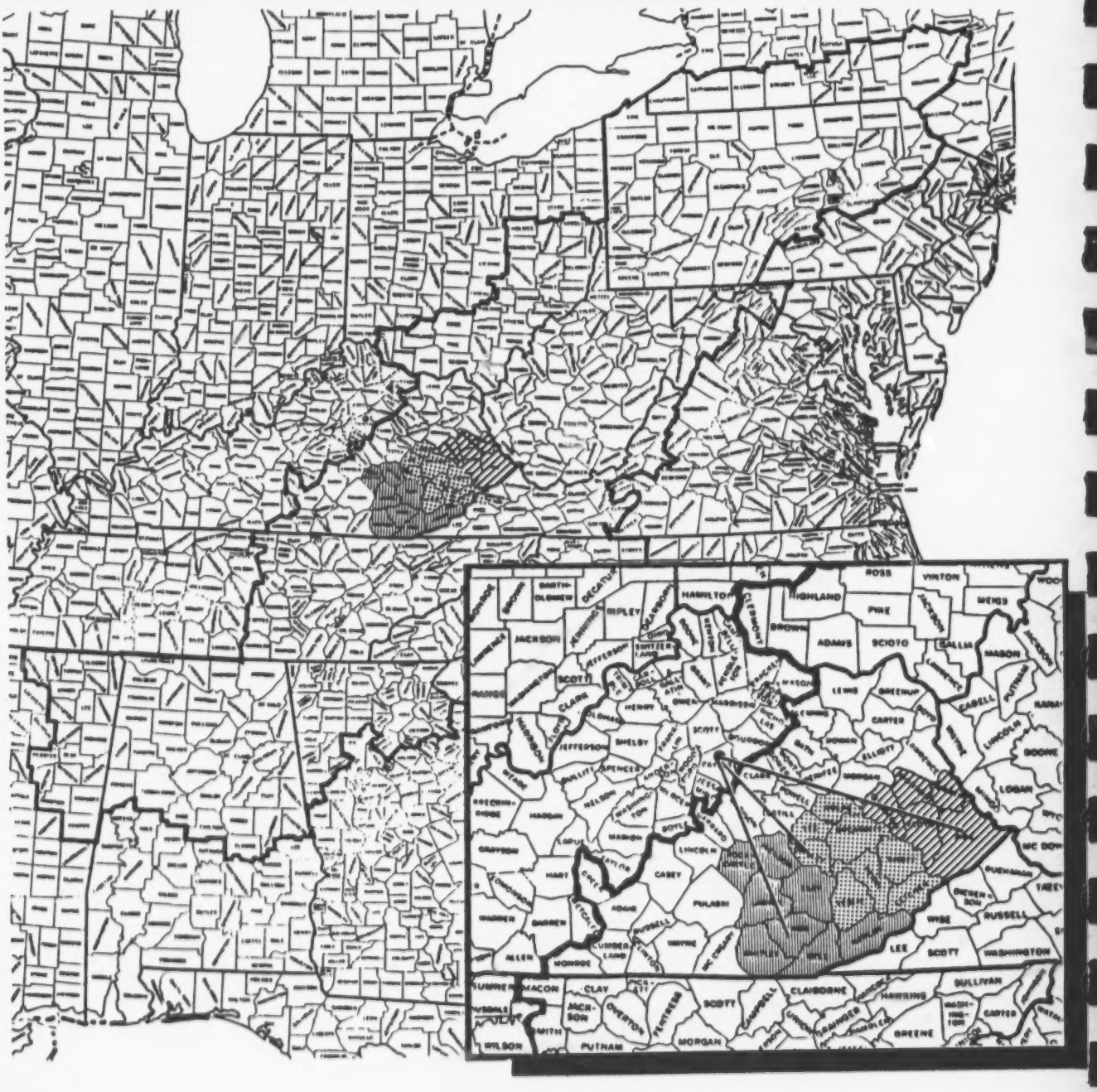
Big Sandy (5 counties)	53.0 (48.9-57.2)
Kentucky River (8 counties)	55.1 (39.9-75.5)
Cumberland Valley (8 counties)	59.2 (47.5-64.6)
Kentucky (120 counties)	58.3
USA (50 states)	66.1

It is not surprising that the fertility rates for the remaining women in these valleys is lower than that for the United States as a whole (see Figure 3). There are fewer young women, and therefore fewer children. Parallel to the reduced fertility rate, there is a lower birth rate than for the nation (see Figure 4).

Figure 4

BIRTHS 1987

	Number	Rate/1000 pop.
Big Sandy (5 counties)	2430	12.7 (11.8-14.3)
Kentucky River (8 counties)	1835	13.1 (8.8-16.7)
Cumberland Valley (8 counties)	3331	13.9 (11.0-15.4)
Kentucky (120 counties)	51,358	13.8
USA (50 states)	3,829,000	15.7



PIKEVILLE CLINIC (BIG SANDY, DIST. 11)

BOONEVILLE CLINIC (KY. RIVER, DIST. 12)

BARBOURVILLE CLINIC (CUMBERLAND VALLEY, DIST. 13)

UNIVERSITY OF KENTUCKY CLINIC

The mothers in these three valleys of eastern Kentucky once had a higher percentage of high-risk babies, but now those percentages are near those for the rest of Kentucky and the United States (see Figure 5). This is a significant improvement.

Figure 5

PREMATURE BIRTHS 1987

	Number <2500 g.	Rate/1000
Big Sandy	164	6.7
Kentucky River	134	7.3
Cumberland	256	7.7
Kentucky	3,568	6.9
USA (1985)	225,200	6.8

The infant mortality rate (counting those babies that are born live but die within the first twelve months of life) has been used as the most reliable index for child health care. It is used by the World Health Organization as the most reliable statistic for health care for the whole population in underdeveloped countries. When I completed my training in pediatrics and came back home to join the startup faculty at the new College of Medicine in Lexington in 1961, the infant mortality rate in Kentucky was 27.2 babies for every 1000 births, compared to the national average of 23.4. This was considered disgraceful, for at the same time the rates in some countries like Sweden were about half this rate.

When the Appalachian Regional Commission was started over two decades ago, one of the major health parameters that the Commission used to judge health care was the infant mortality rate, and the ARC continues to focus on this old statistic to justify health care expenditures. The presidential candidates, Dukakis and Bush, had their own agendas to address this problem -- for the USA as a whole ranks at the bottom of 19 industrialized nations in this health care index.

Now the figures for infant mortality in eastern Kentucky are surprisingly good (see Figure 6). Since the Medical School

Figure 6

INFANT DEATHS 1987

(0-12 mo.)

	number	rate/1000 births
Big Sandy	22	9.1
Kentucky River	18	9.8
Cumberland Valley	33	9.9
Kentucky	497	9.7
USA	38,000	10.0
Kentucky 1961		27.7
USA 1961		23.4
USPHS Goal 1990*		<12.0

* For each county, racial or ethnic group

was started almost three decades ago, we and others have been steadily working on improving the survival of babies all over Kentucky and particularly in eastern Kentucky. As a result of these efforts, the infant mortality rates in these three valleys are now about the same as for the entire state and less than for the entire United States. The United States Public Health Service has set a goal for 1990 that no county, ethnic group, or racial group should have an infant mortality rate greater than 12 per thousand. We've already reached this goal!

However, we know that health care in Kentucky Appalachia lags behind that of the rest of the country. Not a week goes by that we don't read in the newspaper about health problems in eastern Kentucky. I think we have progressed beyond the point of being compared to third-world countries -- perhaps second world fits better. We need to look at our problems in a new light. The death rate continues to be the same as it has always been, 1000/1000; that is, everybody eventually dies. What we have done is to extend the duration of life. We are no longer overwhelmed by the acute infectious illnesses that snuffed out so many lives before they could ever get started. Rather, we have to cope now with illness in an older age group, and this is the situation for children, just as it is for adults. The so-called chronic illnesses are now the major health problem.

Figure 7

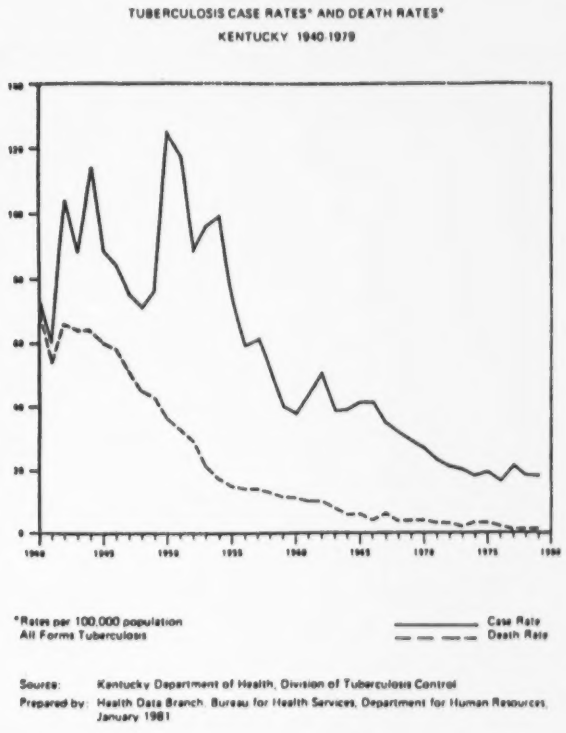

TUBERCULOSIS CASE RATES* AND DEATH RATES*
KENTUCKY 1940-1979
*Rates per 100,000 population
All Forms Tuberculosis
Case Rate
Death Rate
Source: Kentucky Department of Health, Division of Tuberculosis Control
Prepared by: Health Data Branch, Bureau for Health Services, Department for Human Resources, January 1981

Figure 7, a graph first used by Grady Stumbo and his associates when he was the Commissioner for Human Resources in Frankfort, shows this phenomena as it has evolved in Kentucky since the turn of the century. To make the statistics in this graph more understandable, I want to present some examples of real people from my clinics.

Figure 8

CHILDREN WITH DIABETES

(Estimated 1985)*

Big Sandy (5 counties)	115
Kentucky River (8 counties)	84
Cumberland Valley (8 counties)	139
Total	338
Kentucky (120 counties)	2026

*1:500 population <18 yrs.

Juvenile diabetes occurs in about one out of every 500 school children. Based on the most recent population data for the three valleys, there should be about 338 of these children (aged 18 and under) who are taking insulin daily (see Figure 8). Diabetes mellitus is a chronic illness of energy metabolism due to the auto-immune destruction of the pancreas and the subsequent lack of insulin. Affected children rarely die from the disorder before reaching adult status (see Figure 9).

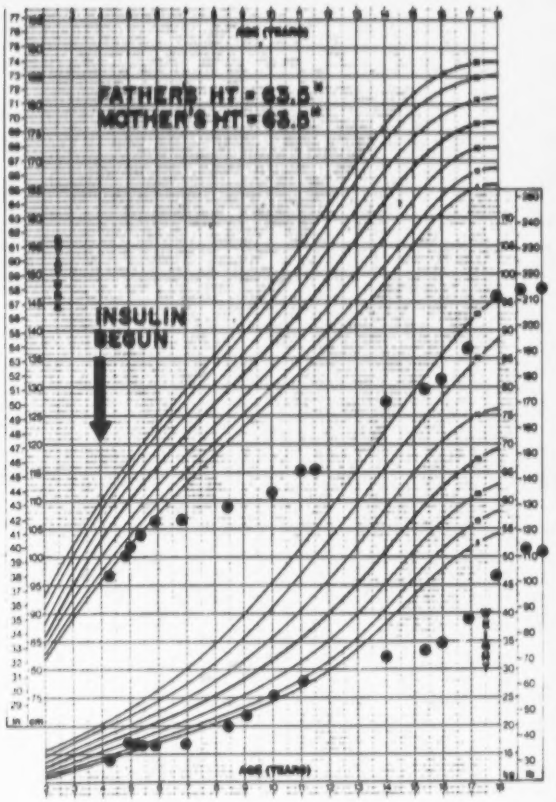
Figure 9

DEATHS DUE TO COMPLICATIONS OF DIABETES MELLITUS '85

All ages, total	16,646
Less than 24 years old	72

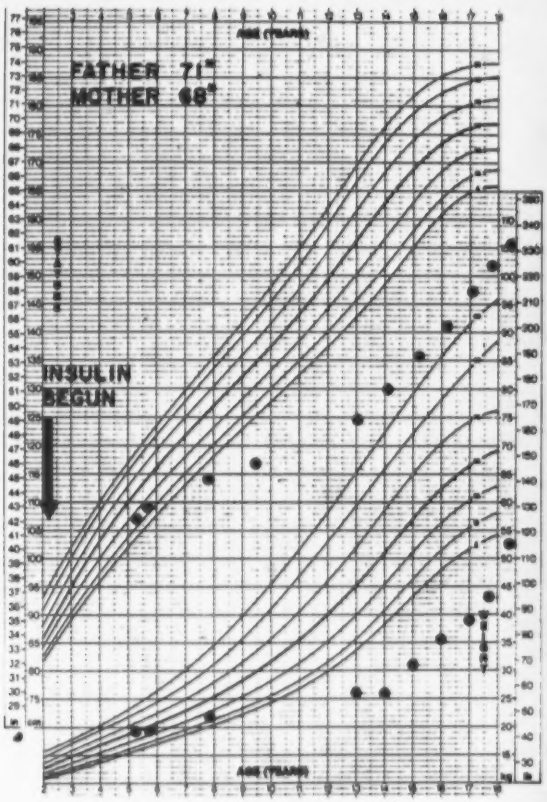
However, without daily insulin injections, they would die within a few days. We do not allow this to happen, but we nonetheless have not been taking good care of these children. Many have been allowed to become medical cripples who require frequent rehospitalization and are psychologically weakened to the point of being homebound. We have done a poor job of heeding the later complications of blindness, kidney failure, and neurologic deficits.

My first example is an older boy with whom I have had continuing contact since shortly after the diagnosis of diabetes was made at age four (see Figure 10 on the next page). Because of cultural, economic, and distance factors, we could never maintain metabolic control of his diabetes. As a consequence, he did not grow, and he developed a greatly enlarged liver, leading to the so-called Mauriac syndrome from chronic insulin deficiency. Because he was always sick and not feeling good, he did not attend school regularly and, of course, did not make any educational progress. However, the most tragic part is that he was sporadically greatly overdosed with insulin, resulting in hypoglycemic brain damage. Now 28 years old, he is unable to leave home without getting lost. He knows his



This patient from my clinic developed diabetes at age four years. After his initial hospital care, his medical supervision was provided by a grannie mid-wife for the next five years. When he was first seen in our clinic at age nine years, he was greatly undergrown and had massive hepatomegaly (Mauriac Syndrome). His care has been limited by the long distance of his home from our hospital and by the lack of competence of his well meaning parents. Now, over a decade later he is permanently dwarfed, has persistent liver enlargement, cataracts, nephropathy, and neuropathy. Most tragically, he is now retarded from repeated episodes of insulin induced hypoglycemia.

Figure 10



This patient from my clinic developed diabetes at age 27 months. After his initial daily dose of insulin was established, he remained on the same low dose for the next nine years. By school age he was smaller than all the other first graders. When he was referred to our clinic at age 13 years he was dwarfed, immature, and had a greatly enlarged liver (Mauriac Syndrome). On larger and appropriate doses of insulin his liver returned to normal, he grew some, and he developed sexually. Later, he developed soft tissue thickening over the joints of his fingers and toes, greatly limiting their motion. He has begun to show signs of diabetic retinopathy, nephropathy, and neuropathy. He works in a sheltered situation (father's grocery store) and is married with a child.

Figure 11

name and can usually tell you where he lives, but he cannot tell the time of day, and he wouldn't know the name of the current president; fortunately, he is not allowed to drive an automobile.

Figure 11 on the preceding page shows another young man who is also a victim of chronic insulin deficiency. After the initial diagnosis of diabetes at the age of 22 months, he remained on the same small insulin dose, with later adjustments being inappropriate. This resulted in dwarfism, arthropathy, and blindness. Now 28 years old, his chronic illness has left him unemployable and sexually impotent. His wife has taken the children and left. He has returned to live at home with his parents. He makes pocket money by trading guns at various flea markets.

These two patients were selected to show the extreme effects of inadequate care of a chronic illness, diabetes mellitus. Of the approximately 150 children that we are now caring for who live in these three valleys, none has deteriorated to this degree. However, they do have many problems, if they do not receive regular ongoing medical supervision. For example, if they do not receive appropriate care, they frequently stay home from school, are assigned to a homebound program rather than attending regular classes, do not grow, mature slowly, and are frequently hospitalized for either diabetic ketoacidosis or insulin reactions.

With the cost of one day in an intensive care unit costing between $600 and $1000, simple arithmetic tells us that providing adequate outpatient care is very cost effective for this disease. We are now seeing these children in a clinic near their homes at least four times a year and have introduced home blood glucose monitoring so that they can adjust their own insulin on a day-to-day basis. As a result, we have reduced the rehospitalization rate from 50 to five per year in one cohort that we reviewed.

Next, I would like to look at the problem from a different angle. Two months ago, I saw, reprinted on the front page of the Lexington newspaper, a sixth-grade class picture, taken in 1978 in a Clay County elementary school. On the tenth anniversary, reporters traced the whereabouts and activities of all 32 children over the last decade. As the doctor who had examined these children in Head Start when they entered school in 1972, I was especially interested in this report. I don't remember the individual children, but I do recall that we had to refer about 10% of them to University Clinic in Lexington for additional evaluation and care of various chronic conditions; such conditions would not have been found examining first graders in Lexington, for they would have already been discovered. On reading the individual ten-year progress reports on these 32 children, I learned that most are still poor and will remain so.

Such chronic poverty is an continuing barrier to proper medical care. As I indicated earlier, the new challenge is the management of chronic illnesses and conditions in the people of these three valleys, and this is a costly undertaking. One of the major deficiencies that does not permit adequate care of chronic illnesses in this population is the lack of personal financial resources.

Figure 12 shows personal income data for people in these three valleys, for Kentucky as a whole, for one of the more affluent Kentucky counties (Fayette), and for the United States. As you can see, both personal and family income for this population is about half of that for areas

Figure 12

PERSONAL INCOME

	Per capita (1986)	Median family (1988)
Big Sandy	7021-9572*	14,000-21,700
Kentucky River	6127-9991	10,100-18,000
Cumberland Valley	5997-9406	8,901-20,300
Kentucky	11,342	24,200
USA	14,636	21,500-45,500
Fayette County	15,134	27,400

*range

where adequate specialized medical services are available. Since the great expansion of medical education following World War II, many new doctors have come to Kentucky Appalachia. However, in the "re-doctoring" of Appalachia, most of the new physicians have been primary care doctors. During this same 20-30 years, the rest of the state and country has enjoyed not only increasing numbers of primary care doctors, but an ever increasing number of physicians who provide specialized medical care. It is this latter group of doctors with their associated services that have not come into these three valleys.

Providing outreach clinics, as we have done for children with diabetes, is not the final answer for bringing specialized medical care to Appalachia. But our clinics can be used as an interim model to show the effectiveness, in both human and financial terms, of bringing specialized medical care to this population. Our outreach clinics have improved the quality of life and the future productivity of these 150 children. I suggest that the health care planners use our model of outreach clinics providing specialized medical care to solve, on an interim basis, some of the problems of health care delivery in Kentucky Appalachia.▪

HEALTH PROFESSIONALS' LOCATION AND PRACTICE IN RURAL UNDERSERVED AREAS: AN ASSESSMENT OF VARIABLES

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Despite the increased number of health professionals trained during the past two decades, many communities in rural Appalachia continue to suffer from health manpower shortages. For example, about half of the 49 Kentucky Appalachian counties are designated, either partially or wholly, as primary care health manpower shortage areas.

Recognizing the health care needs of this area of the state, the University of Kentucky's Physician Assistant Program designed and implemented a three-year project aimed at increasing the number of graduates locating in rural Appalachia. This project, entitled "Training for Appalachian Practice" or TAP, for short, has now entered its third year as a funded project. The major focus of this project has been to assess variables related to students' intentions to practice in the area, providing knowledge about and clinical experiences in the areas, and increasing employment opportunities for physician assistants (PAs) by working with physicians in Appalachian counties.

This paper will focus on a general description of activities and selected findings from the project. A brief overview of variables that seem most influential in affecting health professionals' location to rural areas will help to place the TAP Project in a perspective of what is generally known about graduate deployment.

As might be expected, the bulk of the literature regarding health professionals' practice location is largely focused on the decision-making process of physicians. While the studies involving physician assistants are more limited in number, the available literature suggests that there is an overlap in the factors which influence PA and physician location decisions. One important difference between PAs and physicians, however, is that, because of regulations, physician assistants can practice only under the supervision of a physician. Hence, PA location is necessarily conditioned by physician location.

Four major categories of variables have the potential for being significant in practice location. First, the background of health professionals is important. The literature shows that a physician raised in a rural setting is more likely than one from an urban area to select a rural practice. Although the research on PA practice location has not conclusively reported such significance, it is probably the case that PAs with rural backgrounds are also more likely to seek employment in rural areas. Rural background of the spouse is also a strong predictor for the professional's choice of a rural practice setting.

Second, needs of the spouse and family of the health professional are important determinants of location. Issues such as availability of employment opportunities for the spouse, quality of the local service infrastructure, such as schools, roads, and libraries, and "quality of life" factors, such as crime rates, recreational facilities, and cultural opportunities, sometimes become overriding concerns influencing location decisions, regardless of the individual's own desire to practice in a particular area.

A third group of variables affecting physician location are what might be termed "organizational" factors. These include opportunities for Continuing Medical Education and consultation and coverage by other physicians, the availability of clinical support personnel, and opportunities for hospital practice. While PAs also have CME requirements (100 hours every two years) and many probably enjoy the variety of a practice that is both

office-based and hospital-based, it is unclear from the literature as to the type and importance of organization factors on PA practice location.

Finally, one major factor that clearly seems to influence both physicians and PAs is the educational process itself. In fact, community-based, decentralized education has been found by some (e.g., Hafferty and Goldberg) to be the single most important predictor of non-physician health care providers' location and retention in a region. In general, the rural emphasis of the medical education they receive, particularly in terms of where they receive their preclinical and preceptorship training plays a major role in employment location. For physician assistants, this is important not only in the sense that students are exposed to the area itself, but also that through their preceptorships they often make contacts for employment opportunities.

As suggested before, the TAP Project was interested in the background and personal characteristics of the students and how they affected intentions to practice in Appalachia. However, much of TAP's emphasis has been on the educational process. Working with the Kentucky Area Health Education Center (AHEC) regional staff, the TAP Project attempted to develop a positive educational program with an emphasis on rural practice in the Appalachian counties. Thus, the project focused on the two variables that we could realistically address.

First, the Project staff hypothesized that since the "place of origin" is known to be a major factor influencing a physician's choice of practice location, it is also probably the case that the PAs from rural backgrounds are most likely to practice in rural locations. In addition, the staff hypothesized that the educational process itself was a key factor affecting PAs intentions to practice. Toward that end, a training model was developed to assess student characteristics, background, knowledge, attitudes, and experiences that would positively impact on their intentions to practice in Appalachia Kentucky. 174

Through this demonstration project, student intentions to practice in a rural area were assessed, following each educational intervention, to examine closely the factors influencing each student's knowledge of, attitudes about, and experience in rural Kentucky.

At the onset, a student pre-test was designed to gather and analyze baseline information about student characteristics related to intentions to practice in rural areas. This baseline information served as the basis for the development of didactic and clinical interventions on the training and deployment model. The didactic intervention consisted of a series of formal seminars on Appalachian Kentucky. The seminars were part of a required course in the junior year of the PA curriculum, which included historical, cultural, and economic developments as they relate to health care problems and practice trends unique to this region. The student evaluations of this part of the training provided interesting insights about their knowledge of the region, attitudes about Appalachia, and its influence on their intentions to practice in the area. (Table 1)

Responses from the students show that 94% believed that the seminars increased their knowledge about the region. In addition, 75% of the students stated that their overall attitudes about Appalachia had been positively affected by the seminars. Interestingly, only 19% of the students said that the seminars had to a great extent influenced the likelihood that they would practice in the region, while only 6% said that the seminars had not influenced at all their intentions to practice in Appalachian Kentucky.

The clinical aspect of the training model included at least one four-week clinical preceptorship as an intervention to provide health care experience in medically underserved counties in Appalachian Kentucky. Although only one such preceptorship was required of each student, some had up to five clinical preceptorships in these locations. Immediately following the preceptorships, a post-test was administered and later followed-up

Table 1

SELECTED ITEMS FROM STUDENT EVALUATION OF APPALACHIAN SEMINARS

(a)Knowledge	(b) Attitudes	(c) Intention to Practice
To what extent do you believe the Appalachian Seminars helped increase your knowledge about the region.	Overall, my attitudes about Appalachia have:	To what extent have the Appalachian Seminars influenced the likelihood that you will practice in that region.
Increased Greatly - 6 (38 %)	Been positively affected by the Appalachian Seminars - 12 (75%)	To a great extent - 3 (19%)
Increased - 9 (56%)	Remained the same after the Appalachian Seminars - 4 (25%)	To some extent - 6 (37.5%)
Not increased at all - 1 (06%)	Been negatively affected by the Appalachian Seminars - 0 (0%)	To a small extent - 6 (37.5%)
		Not at all - 1 (06%)
N= 16	N= 16	N= 16

with student interviews to examine more closely each student's responses regarding their intention to practice. (Table 2)

One item asked on the pre- and post-test was related to students' rural background and to their intention to practice. When asked, "What priority would you give to job offers in Appalachian Kentucky as opposed to offers in other areas?" there was a 25% increase in high priority for students from rural backgrounds between the pre- and post-test. There was a major shift from giving it the "same" priority to either "higher" or "lower" priority by students from rural backgrounds. This polarization over time may be explained in part by the responses students gave during the interview. What became clear was that several students from rural backgrounds, but not from Kentucky, were now intending to practice in those rural areas after graduation. These students -- one from rural Ohio, another from the Pacific Northwest -- were interested in a rural practice near their families and their place of origin.

These numbers (N=16) are small, and while the data shows that the educational interventions have influenced some students to practice in Appalachian Kentucky, more work is obviously needed to understand other factors bearing on practice location. Further research may show that other background characteristics, such as family needs, employment opportunities for spouses, and the impact of other non-educational interventions are also significant.

This paper has stressed several factors that appear to affect the decision-making process by which physician assistants choose a practice location. Some of the information presented supports the idea that intervention strategies on the part of the PA Program, the University, the AHEC

Table 2

RURAL BACKGROUND AND INTENTION TO PRACTICE IN APPALACHIAN KENTUCKY: PRE-TEST AND POST-TEST

PRE-TEST

RURAL BACKGROUND		* INTENTION TO PRACTICE
Small town / Rural	Urban	Total
2 (25%)	2 (25%)	Higher Priority 4 (25%)
4 (50%)	2 (25%)	Same Priority 6 (37.5%)
2 (25%)	4 (50%)	Lower Priority 6 (37.5%)
8 (100%)	8 (100%)	16 (100%)

POST-TEST

RURAL BACKGROUND		* INTENTION TO PRACTICE
Small town /Rural	Urban	Total
4 (50%)	1 (12%)	Higher Priority 5 (32%)
0 (0%)	3 (38%)	Same Priority 3 (38%)
4 (50%)	4 (50%)	Lower Priority 8 (50%)
8 (100%)	8 (100%)	16 (100%)

*ITEM: "What priority would you give to a job offer in Appalachian Kentucky as opposed to offers in other areas?"

Program, and local communities can influence PA decisions regarding practice location. Many of the on-going efforts of these programs and institutions already include, in part or with some variation, some of the activities proposed by this paper.

First, there are several strategies that indirectly affect PA practice location. As stated earlier, PAs are not licensed and are completely dependent legally and professionally on the physicians with whom they work. Thus, what physicians think and feel about PAs and the role of PAs within the health care system is still paramount to PA deployment. Given that fact, the following efforts are suggested:

• Efforts must continue to maintain the highest standards in the selection and training of PA students to assure that the profession is well received by physicians in Appalachian Kentucky.

• Educational and promotional efforts must continue to assure that physicians in Appalachian Kentucky are exposed to the most recent information on the benefits of working with PAs. This may be done through brochures, displays, workshops, and preceptorships.

• Efforts must continue within the College of Allied Health and the University to develop a job placement and support system that gives special attention to underserved rural Appalachian counties.

In addition, there are several activities which directly address the practice location decision of graduate PAs. These include the following:

• Efforts should continue in providing a cross-cultural orientation to PA junior students to reflect both an Appalachian focus and a rural primary care focus. This emphasis may be included in such courses as Psycho-Social Factors in Health Care, the Appalachian Seminar Series, and Health Systems Clerkship. The senior-year curriculum should also be modified to include a cross-cultural module with a focus on rural clinical practice.

• Support should be given for expanding the Program's Appalachian Resource Center, which contains books, journals, and video tapes to enhance the students' didactic and clinical experiences.

• Efforts should continue to expand rural Appalachian Kentucky preceptorship opportunities for the senior clinical year. The TAP Project, working with the regional AHEC offices, hopes to develop a special-focus, extended Preceptorship in Rural Primary Care for senior students.

• Finally, a coordinated effort must be made by programs and institutions, with the assistance of local high schools and community colleges, to increase the recruitment of students from rural Appalachian Kentucky counties, especially those students with a strong interest in rural practice.

All of these intervention strategies targeted at PA students should be complemented by activities addressing the broader issue of rural health. For instance, we should continue to explore the needs and activities of rural underserved Appalachian communities in regard to their own "grassroots" efforts to improve primary health care. In addition, we must continue to promote the changing needs of rural primary care in the 1990s, with an emphasis on the training of health professionals who will be prepared to handle the low-volume, high-diversity patient population of those areas.

In conclusion, we must be aware that some decisions bearing on PA practice location also reflect intrinsic personal and private values and motives, where neither the educational programs nor the public policy makers are likely to have great influence. Yet the TAP Project has demonstrated that there are numerous activities that will move us closer to addressing the health manpower needs of the region.•

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AN ACTIVE COMMUNITY HEALTH NETWORK

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Abstract

The Maternal Infant Health Outreach Worker (MIHOW) project is a network of seven rural communities in Tennessee, Kentucky, Virginia, and West Virginia. Working in partnership with Vanderbilt University, locally based organizations have provided training and supervision to women leaders for the last six years. A Maternal Infant Health Outreach Worker is part of the natural helping network of women in her community. The MIHOWs are advocates as well as health educators. They recruit and train "Natural Helpers" who are also local women. All are active mothers. The project works with low-income, high-risk pregnant women, before and after childbirth, helping them use available medical services and improve their health behavior. The MIHOW project can demonstrate impact in promoting sound health care practices during pregnancy and improved infant feeding practices during the first few years of life.

Barriers to Individual and Community Health

Extractive industries such as coal mining, lumber, and agriculture once formed the basis of the economy in the rural South, but no longer provide community employment as they once did. Machines have replaced manual labor in the coal mines of Appalachia. In rural west Tennessee, farming no longer provides employment for most people. Communities have been devastated by these economic changes. With generally underfunded and otherwise inadequate public services in these rural counties, families must rely on public health care facilities and school systems that are struggling to provide basic services.

Low-income children and families face serious barriers to health care. The first is due to basic inadequacies in the delivery system. There are too few clinics and too few health providers in the rural areas. In particular, the options for obstetrical/gynecological care for medically indigent patients are few and far between in many areas of the rural South.

On the "demand side" of the health care marketplace, rural low-income families are very poor consumers of health services. Problems with transportation and inadequate insurance coverage create logistical hurdles to health care. Low levels of literacy and educational attainment create additional barriers at every step of the health care process. And the poverty is staggering. In the six communities where our Maternal Infant Health Outreach Worker project originated, baseline information collected in 1983 revealed that 59% of the families in the low-income communities lived on less than $500 per month. Thirteen percent were often without food, and another 31% were so periodically.

The disadvantages faced by low-income children extend well beyond issues of access to health care. Not only does a lack of resources deprive poor children of a fair start in life, but perhaps even more powerfully, failure in school and work life can be passed from generation to generation by family patterns of behavior, particularly parenting behaviors. It easy to see that parenting is not easy in communities where unemployment and underemployment have been constant for decades.

[Ed. note: The Center for Health Services sponsors a wide variety of health-related projects in disadvantaged communities throughout central Appalachia. At the conference, students involved at the Center reported on two student-run programs, 1) the Appalachian Student Health Coalition, which provides technical and organizational assistance by employing graduate and undergraduate students to work with community leaders in meeting local health needs, and 2) the Student Environmental Health Project, which provides technical assistance to low-income rural communities confronting environmental health threats. These two presentations were not written up as papers. The Director reported on a third Center for Health Services project, which is described here.

The MIHOW Model

The Center for Health Services, which has sponsored the Maternal Infant Health Outreach Worker (MIHOW) project, utilizes an approach to community-based health interventions derived from 20 years of field experience. One lesson the Center has drawn is that the interrelatedness of health and socio-economic conditions makes it likely that an intervention in the area of health will be more successful if not isolated from other socio-economic issues.

The MIHOW program is a partnership between community organizations and the Vanderbilt University Center for Health Services. With university support in planning, training, and evaluation, local women are trained to educate and support other women in matters related to prenatal care and infant development. The services are targeted for women whose children are at high risk for educational and developmental problems because of their mother's poverty, stress, and geographical isolation. Although the program cannot eradicate the consequences of poverty in service-starved communities, it enables talented women to help other women make the most of limited resources and to encourage them in new child development practices.

A. MIHOWs and Natural Helpers

The foundation of the program is its staff. At each rural site a Maternal Infant Health Outreach Worker, called the MIHOW, was identified and hired by the sponsoring community organization. The MIHOW is a community leader who is also part of the natural helping network of rural low-income women. She learns of high-risk pregnant women through her personal and professional contacts. The MIHOWs must be mature and independent women who are experienced advocates for other people. She brings knowledge of her community and some professional experience, but not necessarily any expertise in health or child development.

The MIHOW launched the project and provided services alone for about one year. During the second year of the project, the MIHOW recruited and trained assistants called "Natural Helpers," who gradually replaced the MIHOW as the main service provider.

Natural Helpers are recruited and hired based on their personal characteristics. They need outgoing personalities and a commitment to helping women and families. When they joined the program, the Natural Helpers had less experience, skill, and education than the MIHOWs. The Natural Helpers are in many ways more like the clients than the MIHOWs. In fact, a good number of the Natural Helpers first became involved with the project as successful clients.

Although the Natural Helpers can readily establish an excellent rapport with clients, their familiarity with health and child development was typically weak at first. For this reason, a strong training component is essential to the program. We chose to include mandatory monthly training days as a part of each Natural Helper's schedule. Natural Helpers are paid for this training course, just as they are paid for each home visit or other job they perform. The Natural Helpers work part-time, carrying caseloads of three to ten clients, compared to the 20 to 30 clients visited by the MIHOWs before the Natural Helpers were added to the program.

B. Home Visits Before and After Birth

Once a young woman joins the project, a MIHOW or Natural Helper home visitor calls on her at home throughout her pregnancy, continuing until the child's second birthday. The client receives one home visit per month during pregnancy and the child's first year of life. During the child's second year, home visits decrease to every other month. Parents and children also become involved in group activities sponsored by the MIHOW project.

There are four primary goals guiding the home visiting in the prenatal period: to increase the clients' use of prenatal care, to increase the clients' self-care ability, to help the clients prepare for

labor and delivery, and to provide practical and emotional support to the clients.

After the child is born, the program encourages the mother to breastfeed and to delay the introduction of solid food. Workers help the mother become fully aware of the developmental stages of her child. They help her to provide a stimulating and physically affectionate home for the child. Finally, they help the mother prevent disease through the appropriate use of well-child visits and attention to safety at home.

In addition to providing direct services through home visiting, project workers also try to improve the quantity and quality of prenatal care received by their clients. Low-income women seem to encounter an infinite variety of obstacles to medical care, from transportation problems to difficulties with applying for medicaid. MIHOW staff help their clients problem-solve and offered concrete assistance when necessary. Beyond improving access to and utilization of existing public services, the project has been committed from the outset to develop new services where possible and appropriate.

The most important lesson learned during the implementation of the MIHOW project was the importance of staff training. In fact, the program is essentially a training program for community leaders in health. The core of our training is in home visiting skills. A great strength of using paraprofessionals as home visitors is the flexibility with which they can adopt different roles depending on the needs of their clients. The same home visitor will often report having a close mutual friendship with one client, acting like a substitute mother with another client, and playing a professional or teaching role with a third. Much training time must be devoted to exploring the strengths and weaknesses of the different roles.

180

Program Participants

The mean age of those taking part in the MIHOW intervention program was 20.5 years at the birth of their MIHOW targeted children. Two-thirds of MIHOW mothers were white; the balance of the clients were black. Forty-three percent were married and living with their spouse; the remainder were separated, divorced, or never married. The mean number of years of education they had completed was 10.3. The majority of the households in which the MIHOW families lived had monthly incomes well below the federal poverty line; the mean was $443.71, the mean number in the household being four prior to the births of MIHOW children.

Despite the program's goal of working with women as early as possible in their pregnancy, clients actually entered the program at any point during their pregnancy. Most clients (69.5%) received home visits for three to seven months prior to their delivery. The mean duration of prenatal visiting was 4.82 months. The mean number of visits received during the prenatal period was 4.5. Clients who were still in the program at their child's first birthday received an average of 9.7 visits during the first year. Clients still in the program at their child's second birthday received an average of 7.2 second-year visits. Those completing the full two-year program received an average total of 21.5 pre- and postnatal visits.

Of the 571 clients entering the program during the evaluation period, 87.1% remained at the birth of their child, 56.3% remained at their child's first birthday, and 32.4% completed the full two years.

Evaluation Strategies

Two main strategies for evaluating the impact of the MIHOW project on its participants were followed. The first entailed comparing information about our clients with information on a group drawn from county-level data provided by Vital Statistics in West Virginia and Tennessee and by the Kentucky Department of Prenatal Services. This strategy was applied to information on pregnancy outcomes and prenatal care use. The second evaluation strategy involved the systematic adminis-

tration of structured interviews in clients' homes when the target children were about one and two years old. As part of each interview, the Caldwell HOME Inventory was administered. In addition, questions were asked about pregnancy self-care and infant feeding practices. Since the project was not able to track controls from the first to the second year and since attrition changed the make-up of the client group, each of the two interviews represents a separate study.

The superior performance of MIHOW mothers on the HOME is a strong indication that the program is successful in making MIHOW mothers better attuned to the developmental needs of their children. The positive results from an abbreviated version of the Denver Developmental Screening Test reinforce the expectation that improved mother-infant interaction and home environment result in developmental advantages for target children. MIHOW parents also gain a sense of success as educators of their children. That may continue to enhance the development of MIHOW target children and their siblings long after their involvement with the MIHOW project.

Conclusion

The families served by the MIHOW project are struggling to raise children in a context of regional underdevelopment and generational poverty. The MIHOW project is modest in scale, yet targets highly stress2ed families in a resource-poor environment. The MIH OW intervention is effective to the extent that it builds on the strength of rural families and the natural helping abilities of rural women.

Grassroots leaders, especially rural women, represent a great untapped asset in otherwise resource-starved communities. A central support management structure has been crucial for nurturing MIHOW's grassroots efforts to assist low-income families. The Center for Health Services at Vanderbilt University has provided training and organizational assistance to the sites, which allows local programs to concentrate their energies on client recruitment and service. In rural areas, organizations tend to be either over-committed or unsophisticated in managing helping programs of much complexity. Centralization of planning, support and evaluation better enables community organizations to sponsor relatively complex family support interventions.

Aided by the project's investment in staff training and organizational development, local women leaders have been able to use the MIHOW project to build an organizational base for further efforts in support of low-income rural families. Two MIHOW sites developed new community-based organizations focused on serving families. The MIHOW sites have attracted state, federal, and private funding to expand their outreach to and advocacy for families at risk. After the initial demonstration phase was over, each of the sites was able to institutionalize the original services independently.

Locally recruited paraprofessional staff members benefited from the MIHOW program directly. The training, support, and organization provided to local staff members may be their first exposure to the power they possess as individual helping agents working together. This impact may be as important as the impact on the clients, for it is the beginning of the leadership development needed to develop long-term solutions for the problems facing low-income rural communities.

An assessment of the impact of MIHOW on the participating families leads to two major conclusions. First, the MIHOW intervention was insufficient to make a significant improvement in the birthweights of the children born in the project. Monthly home visits made a difference in prenatal self-care and may have had an impact on prenatal care use, but were not adequate to affect the birthweights of infants. But whatever the impact of the prenatal visits on prenatal and pregnancy outcome variables, the prenatal visits did lay the groundwork for later program effects.

The MIHOW project clearly demonstrated that a family support intervention using paraprofessional home visitors can improve the quality of the home environment provided to rural low-income children. MIHOW families scored significantly higher on the One Year and Two Year Caldwell HOME Inventory than did a well-matched comparison group. It seems reasonable to expect that the improvement in home environment will benefit both MIHOW parents and their children. Many MIHOW mothers have learned that they can become more successful parents, actively involved in their children's development. MIHOW target children may well translate their enriched early childhood experience into greater success in learning and as they grow up and enter school.

In sum, the MIHOW project has had a powerful and positive impact on the participating families, on the women providing the services, on the leaders managing the local programs, and on the local organizations sponsoring the intervention. In practice, it is impossible to separate these different levels of impact, because they are interdependent. The organizations, the leaders, the natural helpers, and the families themselves are all part of a long-term process of community development which represents the only viable solution to the problem of the developmental disadvantages faced by children growing up poor in underdeveloped communities.▪

SUMMARIES

THE INFLUENCE OF CULTURE: A COMPARISON OF THE PATTERNS DEPICTED ON THE GENOGRAMS OF APPALACHIAN AND NON - APPALACHIAN FAMILIES

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Since the recent evolution of Family Theory and Therapy, more health care professionals are becoming aware of the multigenerational patterns of behavior. These behaviors may be demonstrated in genograms. Assuming that culture has a strong influence on behavior, then the genograms of different cultural gaps should show some differences.

To confirm this assumption, genograms were done on Appalachian and Non-Appalachian families and compared on the attribute of the number of situational crises depicted thereon. Situational crises considered were: 1) sudden accidental death of any family member at any age, 2) divorce, 3) spontaneous and therapeutic abortions, 4) death of any person under the age of forty, 5) a child with a serious chronic disease, 6) any family cut-off such as a run-away child or a marital separation without divorce, 7) any marriage prior to the age of 18, 8) serious chronic illnesses in adults such as alcoholism or abuse, 9) loss of a body part, 10) suicide, and 11) mental illness. The non-probability sampling technique of an accidental type, specifically called snowballing, was used for data collection.

It was expected that there would be more crises depicted on the genograms of Appalachian families than on genograms of Non-Appalachian families. This study failed to support that hypothesis. However, it did support the theory that cultural factors have no significant impact on the incidence of mental illness in any particular group.▪

THE IMPACT OF CULTURALLY BOUND BEHAVIORS ON HEALTH CARE DELIVERY IN APPALACHIA

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Our health care professionals are well trained in the technological aspects of health care delivery. They know what techniques are appropriate for stroke patients or spastic cerebral palsied children, for instance, and they can state the neurophysiological theories on which their treatment rationales are based. But a great many of these professionals are woefully lacking in any understanding of culture, in general, and of the Appalachian culture, specifically. Consequently, these same well-trained professionals often make comments about many of their patients which reveal that they think of Appalachian people primarily in stereotypical images. It is not uncommon to hear Appalachian patients referred to as "real strange people with a lot of odd beliefs" or to have them described as "all being on welfare with no skills at all," and "refusing to come to the hospital or failing to follow through on what you tell them to do."

Our lack of understanding of a patient's culture may dictate the clinical judgments we make about patients and may in some instances lead to less than adequate health care. For example, a therapist from New York who works in Floyd County, Kentucky, reported that she entered various patients' hospital rooms and stated that she was there to do range of motion and strengthening exercises. When her patients responded, "Well, I don't care to," she left their rooms immediately and recorded in their medical charts, "Patient refused therapy today." This pattern persisted for 18 months, until she shared it with a colleague and discovered that she had misinterpreted the patients' responses. She was not familiar with this particular expression meaning "I don't mind if I do," and therefore did not understand it within the cultural context in which it was spoken. She is an example of a health professional who is a very literate person in medical matters, but "culturally illiterate." She has little knowledge of the culture in which her patients live or of the impact it has on their behaviors which she observes.

We must begin to think of two cultures meeting when we think of health care delivery in Appalachia. Those who are educated within the health care system al so share in the subculture of "medicine." The person who gets up daily and goes to work in a hospital is comfortable in that environment, understands it, accepts it, and, as a worker within that environment, has some power, at least personally, over his/her own life there.

The patient who comes from another culture into the world of the hospital is not comfortable there, has no understanding of it, and has very little, if any, power over his/her life within that environment. In addition, the patient is sick. That person's resources for adapting, or changing, to meet the demands of this new environment are already compromised. It is a large order to ask that the patient understand and then value all that the health professional does. It is also usually the patient who is "blamed" for lack of cooperation or follow through when the adaptation is not forthcoming.

True accessibility to health care services is much more than mere availability of clinics and their staff. True accessibility to health care requires that health care professionals develop a cultural sensitivity for the patients they treat.▪ 185

A COMMUNITY HEALTH COALITION TO MEET THE PRIORITY HEALTH NEEDS OF A FIVE-COUNTY KENTUCKY APPALACHIAN AREA DEVELOPMENT DISTRICT

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The five Gateway Area Development District counties are within the Appalachian Region and have the typical regional problems of poverty, poor education, and isolation. Early in 1986, the Gateway District Health Department (GDHD) applied to the American Public Health Association for a technical assistance grant to implement Model Standards: A Guide for Community Preventive Health Services. The GDHD was one of eight applicants across the nation initially awarded this Technical Assistance Grant and the only small rural area chosen. The Gateway Health Coalition, Inc. was formed at the first site visit in July, 1986. The Coalition membership totals approximately 100 and includes representatives from all health agencies (including private physicians), local government, the judiciary, educational institutions, several organizations, and other interested individuals. Seven committees work to address identified priority health needs of the area; child sexual abuse, injury control, aging/dependent populations, school health education, health promotion, solid waste management, and indigent care.

Strategies utilized to mobilize the community include the following:

1. **Provide the initial stimulus**, through personal contact with community leaders and agencies.

2. **Provide continuous stimuli**: Examples from the Child Sexual Abuse Task Force include development of a Gateway community sex offender treatment program; a public awareness program; and prevention programs in the schools.

3. **Circulate available data**: Examples from the Injury Control Committee include figures on years of potential life lost secondary to accidents; mortality rates; and morbidity rates calculated from hospital discharge data and police data.

4. **Provide neutral "turf"**: An example from the Child Sexual Abuse Task Force is the initial difficulty in getting all the "players" in same room; it took 6 months.

5. **Utilize vested interests**: For example, the Chairman of the Injury Control Committee, having a vested interest in developing regional emergency medical services at his hospital, implemented a Gateway Injury Surveillance System.

6. **Utilize strong personal interests**: The Director of the same hospital's Emergency Services has a strong personal interest in the child sexual abuse problem. He organized a training program for physicians, who have since committed themselves to performing medical examinations for sexual abuse and testifying in court.

7. **Convene appropriate agencies and individuals**: For example, there is now a functioning multi-agency agreement for addressing child abuse.

8. **Coordinate activities**: By way of the Health Promotion Committee, for example, the GDHD, the Area Health Education Center, and the Centers for Disease Control (CDC) will coordinate their efforts to complete a Gateway health risk survey. CDC will pull the sample, analyze the results, and train the surveyors, who will be psychology students from Morehead State University.

9. **Maintain communication links**, through brochures, newsletters, the media, and public forums.

The coalition is working because the community has been involved from the beginning. Community people have made local and state contacts, and the community has a sense of ownership of the process.▪

REPORT FROM THE KENTUCKY CHAMBER OF COMMERCE 1987 INDIGENT HEALTH CARE COMMITTEE

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Recognizing the magnitude of the indigent health care problem, in 1986 the Kentucky Chamber of Commerce formed an indigent health care committee to study the problem and make recommendations. After 10 months of meetings and individual discussions, the committee concluded that a combination of reform and new initiatives is needed.

• **The Medicaid Program needs to be reformed and expanded**, placing more emphasis on prevention and primary care, with adequate reimbursement for primary care providers, and with the expansion targeting women with children who are living in poverty but not currently eligible for Medicaid. It makes sense to use federal dollars to pay for the Kentucky Medicaid program. For every $28 the state appropriates towards the Medicaid Program, the federal government matches $72, a three-for-one deal. And for every dollar spent on prenatal care, a savings of three dollars is realized.

• **The long-term care system needs to be redirected so that the Medicaid Program is not expected to subsidize all nursing home care for the elderly in the future.** Long-term care is one of the big ticket items of Kentucky's Medicaid program, consuming more than 40% of the total budget. By ensuring the system is used when necessary and by increasing the percentage of private pay patients, costs can be drastically reduced in this area, an adequate reimbursement to providers can be realized.

• **Health insurance should be made available for the working poor through multi-employer trust arrangements.** Concern is growing over the number of uninsured workers in many small businesses. Many small businesses, stretching to make ends meet and provide payroll, cannot afford insurance coverage now, and state or federal mandates on benefit plans would add further costs. The committee believed that small business persons could be encouraged to join pools voluntarily, if the cost of such a basic health insurance policy was reduced by a group rating. The basic plan would be bid on by the private sector, and the administration of such a program would be wholly private.

• **Basic primary care must be made available to persons whose income is too high to qualify for Medicaid but too low to be able to purchase private insurance.** The state conducted demonstration projects in four local health departments providing adequate primary care to the indigent population in those counties while maintaining a reasonable budgetary allocation. Health departments are in place and have the resources to serve the indigent population.

If enacted, these recommendations would not completely solve the indigent health care problem. Given revenue constraints, the committee chose to select what they believed were the needy groups: pregnant women, children, working poor, and the elderly. As we approach the 1990 General Assembly, the indigent health care problem continues to plague our state. The Kentucky Chamber maintains our interest in this issue and will continue to advocate the recommendations above, which are as meaningful today as they were two years ago. Only time will tell if a compromise solution will be reached in 1990. One thing is certain: our entire state -- individuals, corporations, and government leaders alike -- should have a voice in any such compromise.

SPECIAL HEALTH PROBLEMS IN APPALACHIA

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It is well recognized that there are health problems of special importance to Appalachia. These include a higher-than-national average of certain common diseases, such as coronary artery disease, hypertension, diabetes, and chronic lung disease. In addition there are problems of special importance in Appalachia. One of these comes from an industrial setting, coal mining; and coal workers' pneumoconiosis is found in many Appalachian individuals. Also, pregnancy early in life is common in this area, with the attendant health problems for both mother and offspring. In addition, problems such as cervical cancer, tuberculosis, and dental problems, often associated with voluntary tooth extraction, can be found in excess in Appalachia.

In addition to the traditional view of health problems, there are non-traditional medically related problems of special note in Appalachia. The first of these is access to care, which is a real problem in many Appalachian areas. Few physicians, lack of health insurance, and geographic barriers all contribute to problems of access. A concomitant problem is the quality of medical care. There is evidence that Appalachian health care providers, in larger numbers than might be expected, do not keep up with modern medical developments and provide what might be judged to be less than optimal medical care. There is little evidence of practicing preventive medicine. While this is a non-traditional and potentially volatile issue, isolation, traditional health beliefs, and in some cases association with corporate medical concerns, such as illustrated at Gauley Bridge in the 1930s, play a role in the delivery of health care in Appalachia.

Issues of special concern in Appalachia need to be dealt with on several fronts, including institution of preventive measures for traditional diseases found in great number, improving access and quality of medical care in remote areas, and working with the traditional health beliefs of both providers and patients.•

MATERNAL HEALTH RISK AND NEONATAL OUTCOMES

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The ability of maternal risk factors to predict neonatal outcomes was examined in a retrospective study of 139 randomly selected women who received obstetric care from the Frontier Nursing Service (FNS) from November 1984 - June 1986. The goal of the project was to develop a statistical model for risk assessment, to be applied in a subsequent prospective study, with the ultimate goal of replication to validate the risk model. The sample consisted of low income, white women residing in rural Kentucky.

The development of a model to predict poor neonatal outcomes would assist FNS nursing staff in assessing the relative contribution of maternal risk factors to neonatal outcomes. Nurses delivering care could apply the model in identifying mothers at high risk and could intervene more appropriately, thereby enhancing neonatal outcomes.

Potential predictor variables which were examined were: (a) demographic risks; (b) obstetric history; (c) physical and obstetric status of present pregnancy; (d) behavioral and environmental factors; and (e) labor and delivery risk factors. Neonatal outcomes which were examined included (a) birth weight; (b) gestational age, and (c) congenital anomalies. Descriptive and correlational techniques as well as discriminant function analysis were employed in analyzing these data.

The risk factors in this sample were similar to those in other populations of poor, undereducated pregnant women. Risks were so broadly distributed in the sample that factors effecting neonatal outcomes from maternal risk factors could not be identified. The only significant predictive factors were antepartal problems which predicted intrapartal difficulties. A risk assessment scale could not be developed from these data. Results suggest that close attention be paid to nutritional patterns of the mothers, as related to weight gain.•

A COMMUNITY NURSING PRACTICE FOR HEALTH IN APPALACHIA

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A faculty practice site was created at the Shack, a neighborhood house sponsored by the United Presbyterian Church, located in the north central area of West Virginia. It is a totally Appalachian community. The environment surrounding the Shack is relatively isolated from the standard medical system services found at a nearby university setting. This relative isolation is sometimes attributed to economic as well as geographic factors. Individuals seeking health related guidance at the Shack have cited multiple reasons for not making or keeping appointments in the established medical system. The faculty practice has attempted to serve as a moderator to some of these problems.

The health clinic at the Shack has been in operation for approximately five years. The faculty have noticed many students using the clinic as a supportive system and have been able to access the established medical delivery system successfully. However, it has been noted that many of the students served still are not using the system effectively. Consequently, the nurse faculty decided to evaluate cultural influences on health-seeking behaviors in this Appalachian population.

Convenience sampling of those individuals not accessing the existing systems successfully was utilized for this study. Thirty-one individuals voluntarily participated. All participants were asked to complete the Health Value Schedule developed by Dr. Hazel Weidman. This tool was developed as part of the Health Ecology Project at the University of Miami. It operationalizes the value orientations of time, activity, relational, and individual to nature. This inventory is a twenty four item instrument that uses situational scenarios and requests a choice of behavior. The forced choice elicits value orientations of the respondent. Several of the participants had difficulty reading the instrument. Those participants were read the questions and answers. Responses were recorded by the investigator. Descriptive statistical analysis was used to obtain means of all scored responses.

Findings were compared to the data of the Miami Ecology Project and with documented parameters of Appalachian culture. Findings indicate that this population revealed a definite change in patterns of value orientations in Appalachians when compared with other research studies reported in the literature. There was a distinct move toward assertive views regarding health care habits. The outcome of the project allowed interventions to be designed to improve the health behavior of Appalachians. Implications of this project include the need to design an instrument specific to Appalachian culture with a reading level appropriate for the sample and to compare Appalachian data with data from rural areas that are not in Appalachia.▪

A RETAIL THEFT EDUCATION PROGRAM: ALTERNATIVE APPROACHES FOR DEALING WITH ADOLESCENT OFFENDERS

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In the past three years, the Alternatives Counseling Services has been treating and educating adolescents who have come to the attention of the criminal justice system for various reasons: truancy, maladaptive behavior at home and at school, underage drinking, and most recently, compulsive and impulsive behavior regarding retail theft. The study we have conducted explores, through an educational and prevention program, the social and emotional factors surrounding the offender who commits retail theft. Our study covers an 18-month period (April 1987 to October 1988).

The goal of our retail theft counseling is to provide an educational atmosphere for the offender, whereby he/she can learn about the motives and other related factors that are all part of stealing. Classes are limited in size to ensure individualized instruction. The treatment begins with an initial intake session, which is individually scheduled in order to gather data. The first class, held during the second session, focuses on the law, section 3929 of the Pennsylvania Crime Code, on retail theft. Specifics of students' individual arrests are also discussed. The third class centers on feelings associated with poor impulse control that may lead to stealing. Session four focuses on stress and its related effects. In session five, each student brings a parent or friend to class to share various aspects of shoplifting, stress, and feelings that may have led up to the crime.

One important exercise asks students to describe the "stealing feeling." Students had difficulty talking about emotions, but describing the actual act of stealing seemed much easier; there was an observable detachment from emotion. Then we approached their emotions through the nonverbal means of art. Students were asked to draw a self-portrait depicting their act of stealing. Each student also drew a second picture of an action that had given a positive feeling about him/herself. This activity developed into drawing pictures of the "stealing feeling" itself. A list of vocabulary words describing emotions was provided to help correlate the act with a feeling. This drawing exercise served two functions. First, it allows the student to focus on and express specific feeling in a very personal way that expands personal awareness. Second, it connects those details to words so that they become meaningful symbols of internal realities. Consequently, feelings become easier to identify and deal with. In short, we educate students both about what impulse is and how to control it.

The next assignment for the students is to keep a journal between classes on day-to-day impulses that are either helpful or detrimental. Students are to bring these to class so that we can identify what the feelings were which gave them their impulses. We discuss these, decide whether or not the impulse was valuable, and brainstorm for positive ways of dealing with the feelings which caused them trouble.

The students thus learn to start developing their identity, sense of self-worth, and self by choice making. These newly clarified convictions aid in developing assertiveness and self-actualization as well as improving behavior and motivation. By learning how to separate thought, feeling, and impulse, students leave better able to direct their actions in a way that works.•

CANCER MORTALITY IN RURAL APPALACHIAN KENTUCKY

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- Cancer mortality rates are increasing at a more rapid pace among both the rural Appalachian and rural non-Appalachian Kentucky populations compared to the U.S. population.
- The lung cancer mortality rate among rural Appalachian Kentucky males is much higher than that of either rural non-Appalachian Kentucky or the U.S. male population.
- Lung cancer mortality has surpassed breast cancer mortality to become the leading cause of death from cancer among rural Appalachian women.
- Colon cancer mortality rates are lower for both males and females in rural Appalachian Kentucky compared to the U.S.
- Colon cancer mortality rates are much higher among the rural non-Appalachian Kentucky population compared to the U.S. population.
- Females in rural Appalachian Kentucky have a cervical cancer mortality rate which is nearly twice that of the U.S. female population.
- Breast cancer mortality rates among rural Appalachian Kentucky women are lower than either the rural non-Appalachian Kentucky females or the U.S. female population.•

[Ed. note: This conference presentation was based on a report co-authored by Thomas C. Tucker, M.P.H.; Gilbert H. Friedell, M.D.; Lorann Stallones, Ph.D.; Jay Randall Thompson, M.D.; and Jane W. Bagby, M.A. The Appalachian Center published this study under the same title in December, 1988, as its Data Bank Report #6. For more information about the research involved, contact Tom Tucker at the address above. To order a copy of the Data Bank Report, send a check for $3.00 to Appalachian Center Publications, 641 S. Limestone, University of Kentucky, Lexington, KY 40506-0333.]

THE DEAF ADOLESCENT - A MENTALLY HEALTHY ENVIRONMENT

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This paper focuses on the characteristics of the deaf adolescent, development prior to adolescence, results of research studies on deaf children and adolescents, and information for parents, professionals, and service providers on the characteristics of a mentally healthy environment for a deaf adolescent.

In addition to the typical variables influencing a deaf adolescent's development, the deaf individual growing up in rural Appalachia faces obstacles of isolation, lack of peer interaction, reluctance to leave the community to seek available and appropriate services, and lack of professionals equipped to deal with their problems.

The key to providing the healthiest environment for the deaf adolescent is to: (1) model behavior that indicates that all problems, great or small, have solutions, (2) relax, and (3) COMMUNICATE!▪

THE FAMILY STABILIZATION PROJECT

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The delivery of traditional mental health services in eastern Kentucky has met with many barriers including: (1) a lack of transportation and poor secondary roads which make traveling to traditional kinds of services very difficult; (2) financial hardship including high rates of unemployment; (3) cultural factors which may include suspicion of agencies; and (4) a lack of knowledge regarding available services. As a result, many children who exhibit severe behavioral emotional and/or social disabilities do not receive the help they need and eventually risk out-of-home placement. Indeed out-of-home placement may result in hospitalization 175 miles from home.

The purpose of the Family Stabilization Project is to avoid such placement of children or youth from Boyd and Greenup Counties who have emotional problems. A primary goal of this program is to reduce the risk of residential placements, since these are costly and disruptive to both child and family. Other objectives are to increase the families' ability to profit from community supports and resources; to improve overall family functioning; to increase parenting skills; to maintain or increase the child's involvement in productive school or work programs; to decrease family violence including physical, sexual, and emotional/verbal abuse; and to increase coordination among agencies working with the family through the organization of an inter-agency task force.

With respect to intervention, therapeutic work with the family is time-limited and of short-duration (four to eight weeks). Services to the family are home-based and occur at times most suitable to the families. A member of the team is on call 24 hours a day, seven days a week, to respond quickly to a crisis within the family. Linking the family to available community resources is a high priority.

Upon completion of the intervention phase, the progress of the family is monitored for a period of at least six months, in an effort to anticipate any further crisis and to ensure that the family continues to benefit from community resources. Further, in order to assess any changes resulting from the clinical intervention, a number of self-reports are administered pre- and post-intervention and at three months and six months after the intervention. These assessment instruments attempt to measure any change regarding family relationships and knowledge of parenting and developmental issues. Further, one measure attempts to determine any changes in child behavior problems as a result of the intervention, while another attempts to determine any change in the child's (identified client) perceived locus of control.

During the first year, 100% of at-risk children remained with their families during the intervention period. At three-month monitoring, 86% of at-risk children continued to reside with the families. At six-month monitoring, 77% of at-risk children were still at home. With respect to direct time, we average about 12.44 hours per week with the families. Results from the self-report measures suggest a parental perception that the intensity of child behavior problems decreases and that family relationships improve. Parents with problematic parenting attitudes seem to improve their parenting knowledge.

The Family Stabilization Project is part of Family and Children Services under the auspices of Pathways, Inc. We are pleased to have contracted with the Kentucky Department for Mental Health and Mental Retardation Services, which in turn received a demonstration grant from the National Institute of Mental Health (NIMH).▪

THE CHILDREN'S DIAGNOSTIC CLINIC: A MULTI-DISCIPLINARY ASSESSMENT OF EMOTIONAL AND BEHAVIORAL PROBLEMS

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A child is born. A family begins. There are hopes, dreams, possibilities, potentials. But there are also risks, disappointments, struggles, failures. Reality strikes. Being a child is not easy. Being a parent is not easy. It may be a small problem, simple to treat, or it may be a severe disorder. But even serious problems are often overlooked. Emotionally disturbed children and their families are society's most invisible victims.

Child and family problems are complex and multi-dimensional. Seldom does an emotional problem have a single cause. Often parents get conflicting advice as they seek help from professionals in the various mental health disciplines.

Cumberland River Comprehensive Care Center's Children's Diagnostic Clinic brings three or more professionals together with parents to determine the specific nature of emotional or behavioral problems for children from preschool age to 18 years old. Each assessment involves one or both parents/caretakers, a child psychiatrist, a psychologist, and another clinician, who may be a social worker, psychiatric nurse, special educator, or substance-abuse counselor. Each participant brings different expertise and explores different facets of the problem. After evaluating the child's situation and functioning, the team meets to exchange information and formulate recommendations. The family leaves the clinic with specific recommendations, and an appointment, if mental health treatment is needed. If the referral came from another agency (Department for Social Services, school, attorney, Juvenile Court, or physician), a written report from each professional is sent promptly, with the parent's permission.

Many kinds of problems are presented. Recent referrals have concerned physical and sexual abuse, parents' divorce, hyperactivity and attention deficit disorder, school phobia, encopresis, depression, difficult adjustment to adoptive home, follow-up to psychiatric hospitalization, intentional vomiting, adjustment problems in school, and psychotic behavior.

Interdisciplinary assessment is commonplace for mentally retarded, developmentally delayed, and multi-handicapped children, but the interdisciplinary assessment of emotional and behavioral problems is unique in this area. The various assessments in psychiatric hospitals are usually done separately over a few weeks' time. Appalachian families' access to these services is limited by lack of transportation and lack of resources. Poor roads, no car or an unreliable car, and the cost of gasoline make the 70-250 miles to Lexington, Louisville, or Bowling Green impossible. In addition, many families do not have insurance. If their child does not have a medical card, private psychiatric hospital services are prohibitively expensive. The Children's Diagnostic Clinic offers a nearby evaluation with a sliding scale fee. Fees are based on income, and no family is denied services because of inability to pay.▪

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